

OCCUPATIONAL CIVICS

BY

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PREFACE

The purpose of this book is to help the teacher in the task of guiding boys and girls in their choice of a vocation, in their plan for education and for leisure time, and in their effort to achieve high ideals in citizenship and in character. In regard to occupations, only enough facts are used to give a general picture. In these the worker rather than the work is emphasized.

The study of civics is approached from the point of view of the workers in government. Besides this, there is, perforce, a bit of civics in almost every chapter.

This book has developed through years of teaching classes in occupations and civics. During this time the conviction has grown that the pupil should be encouraged to do his own investigating and his own thinking. The book tries to present such material as should help him to take the attitude that Emerson suggested to Dartmouth students, "Be content with a little light, so it is your own. Explore and explore. Be neither chided nor flattered out of your position of perpetual inquiry." The express purpose in the exercises is that they will help in training the class to make decisions in an orderly fashion.

Because of the admitted value of dramatization in education some playettes will be found in the book. These are intended as patterns so that groups of pupils may prepare others for use in class.

The whole book takes the adventurous view of life. The following sentence from the preface of *Without Armor* by

James Hilton, helped to confirm the author's opinion that that attitude was not mere sentimentality :

“With all its drawbacks, the romantic and adventurous view of life is the most sensible. Whatever things are false, these at least are true, — the fervor of youth, . . . the thrill of danger, the splendor of achievement.”

I. K. G.

ACKNOWLEDGMENTS

In the making of this book, many experts have aided me by checking my statements regarding their particular fields. Among these I should name Walter C. Coffey, Dean of the Department of Agriculture in the University of Minnesota; Daisy Bell, head of the Commercial Department in Morton High School; Eric Hjorth, of the transit department in the Continental Illinois Bank and Trust Company of Chicago; A. R. Lenox, yardmaster for the Chicago, Burlington and Quincy Railroad; D. J. Hamilton of the Dumore Manufacturing Company in Racine, Wisconsin; Charles Scheel of the Western Electric Company; G. P. Kean, civil engineer; B. G. Harmon, mining engineer; F. L. Bacon, Principal of the Evanston Township High School.

Although the pressure of other work prevented H. V. Church, Executive Secretary of Department of Secondary Schools of the National Education Association, from active authorship in this book as was first planned, I am indebted to him for his suggestions for diagrammatic exercises and for the writing of a number of paragraphs throughout the book.

I am happy to express my gratitude to Anna A. Fisher, formerly head of the Department of English in Lawrence University and Lida B. Lardner for their invaluable assistance in giving helpful suggestions and in bolstering up the courage that is needed by every maker of books.

Finally should be mentioned the teachers at Morton High School who have used much of this material in class and have been good enough to criticize helpfully.

AN OPEN LETTER TO BOYS AND GIRLS

This is your book. It has to do with an adventure — your adventure. Have you heard how men go prospecting for gold in the mountains? Sometimes when they think they have found a good lode, it does not turn out to be rich enough to work. But they continue to hunt. When they “strike it rich,” machinery appears and the precious metal is brought forth.

You are about to prospect for information. If, like the prospector for gold, you examine everything that you find, it will help you to solve your vocational problem. You might name your notebook, *A Treasury of Facts about Occupations*. Your answers to the exercises and your clippings about work will lead you to the “pay streak,” for which you have prospected.

You will be glad, too, to collect material for a *Vocational Bookshelf*. Much that is suggested in this book may be had for the asking. Since no one likes to be bothered with unnecessary requests, why not co-operate all around? Different members of the class could write to different places. Thus the burden would not be too great upon any writer or receiver of letters. If you begin to write immediately, the class will have the material as it is needed. A list of sources is given on page 377.

Your book cannot tell you very much about individual vocations. If it urges you to prospect for more information, and helps you to appreciate the adventures of others, its purpose will be accomplished.

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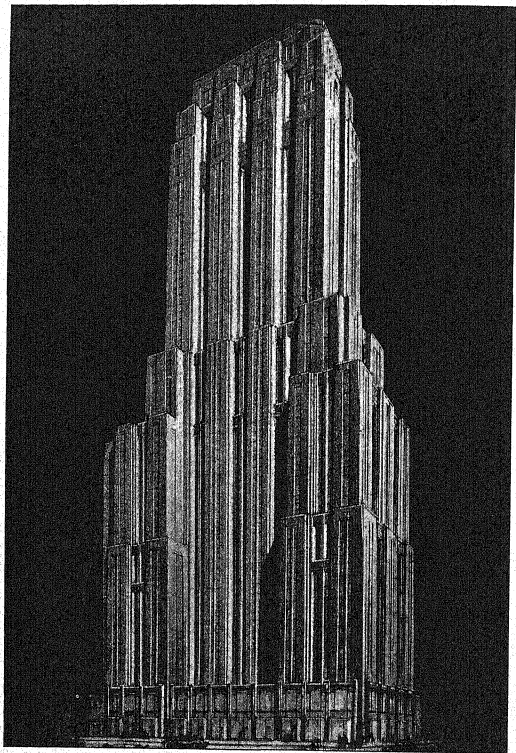
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BOOK ONE

THE ADVENTURE





Courtesy of Holabird and Root

This architect's drawing shows a new idea of beauty and strength. The attractiveness of this building shows best at night with the exterior indirect lighting. On its top has been placed the Lindbergh beacon to guide men in the air.

CHAPTER I

THE CHOICE

Blessed is he who has found his work, let him ask no other blessedness. He has a work, a life-purpose; he has found it and will follow it! — CARLYLE

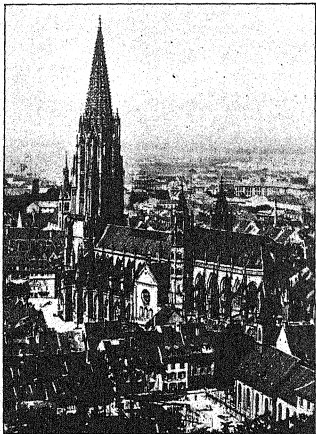
LIVING IS AN ADVENTURE

The meaning of adventure. All of you like to have adventures, but have you ever thought that your life itself is a sort of adventure? Perhaps you do not agree with this, for you have never had the adventure of Robinson Crusoe, or of Cody and the riders of the pony express, or of the knights of King Arthur's Round Table, or of Robin Hood in Sherwood Forest. Perhaps these heroes seem the real adventurers, while you who day by day prepare your lessons and finally earn your living lead a commonplace existence.

What, then, is an adventure? The word itself means a chance — a chance of danger, a chance of escape, a chance of failure, a chance of success. It means meeting risks and undertaking tasks boldly. In this book, we shall look ahead as if we were starting on an adventure, and that adventure for each one is to be his own life. It will be uncertain like Crusoe's journey; it will need quick courageous work like that of the pony-express riders; it will need the spirit of Robin Hood, but a clearer judgment of what is right and wrong; it will need the high ideals and the definite aims of King Arthur's knights.

The strange part of all this is that, while you may choose whether or not you will risk airplane journeys or sea voyages, you have no choice about the adventure of life. In this,

you must take your part. Wise people tell us that during your lifetime this adventure of living is to be much more exciting than it has been for many years. You who are preparing for it will have to find ways of facing new problems.



MEDIAEVAL ARCHITECTURE

Men who built cathedrals in the Middle Ages fashioned high spires which pointed the way to heaven. Note the delicate open stonework and the flying buttresses.

of the manner in which people must adjust themselves to new ways of living together, must be solved by you as you grow up.

Questions that you must answer very soon. Other questions that seem to concern just you alone must be settled first. What studies will you pursue in high school? Will you take part in athletic sports? Will you give part of your

You can no longer think of gaining food, clothing, and shelter for yourself as your only task. The problems of providing these necessities for all the people in all parts of the country are not the same as they were when your fathers were boys. More co-operation is needed than ever before. It will be part of your adventure to see how your occupation may fit into some plan that will make it possible for everyone to earn what he needs. Many new problems of government, of industry,

time to dramatics or to class parties? Above all, for what occupation will you prepare? A satisfactory adventure of living will depend largely upon the way you answer this last question. Choosing an occupation is much more important than deciding on the kind of car to buy or whether you will play baseball or basketball. Many people plan carefully for these less important things, but they fail to face the big question. You must study hard before you decide about your occupation. You must go on a real exploring tour to discover the work of the world. You must not leave it to chance. Too many people have spoiled their lives by doing that.

In planning your adventure, you should consider three definite points. What did Sir Lancelot do before he started for the joust at Camelot? First, he knew his aim: to win the diamond, the last prize from King Arthur. Second, he knew the rules of the game; else he could not have remained in the lists long enough to win the prize. Third, he was well equipped with armor and weapons. His horse was in good condition. So, in your adventure of life, you must first find some definite aim. You must decide what occupation will help you best to attain that aim. Second, you must learn the rules of the game. You will find not only that your government has many things to say about occupations, but also that you will be controlled by other rules and customs. Third, you must plan for your equipment or your preparation for this great adventure. After our weeks of exploration together you will, we hope, discover many possibilities of adventure in the world; and you will be eager to plan your course and then to meet bravely whatever fortune sends.

Many workers. Did you ever stop to think about the amount of work that is being done in the world? Can you imagine how much work there is in the United States alone? In normal times over forty-eight million people in this country are working for their living. Consider for a moment

the occupations represented by some article in your home. Take, for instance, your radio. For the wood, *foresters* probably worked to protect the trees from which *lumbermen* cut as they were ordered. *Millworkers* changed the trees to boards. *Railroad men* or *boatmen* or *truck-drivers* transported this wood to the place where *cabinetmakers* made the case for your set. What about the metal used? *Miners* have mined and *chemists* have tested this. *Metal-workers* got it into shape, while *assemblers* put various pieces together to make the parts. Finally if there had not been *salesmen* from the beginning to the end of the process, you might never have seen a radio. Here are a dozen occupations, and your set has not yet been put together. We have not mentioned glass, wrapping for the wires, nor the workers who use these materials in constructing a radio. We must not forget the foremen, who direct the workers, or the physicians, who attend the sick and injured, or the bookkeepers without whose help the manufacturers could not tell whether they were gaining or losing in their adventures. There is an immense amount of work being done all the time, there are millions of workers, and there are thousands of occupations.

Which will you choose? Which, then, of the thousands of jobs represented by these forty-eight million people engaged in earning their living will you select? Each one of you must answer that question. Some of you may not believe this. You say, "I, for one, shall not bother to decide about my lifework. I shall simply take what comes." But are you sure that you can avoid deciding? You will certainly do one of two things. Either you will drift along, each day, doing the thing nearest at hand; or you will pick out a goal that you wish to reach, a particular adventure that you wish to undertake. So you are really deciding either to drift into whatever adventure you may happen to meet, or to plan the direction that you will take.

QUESTIONS AND EXERCISES

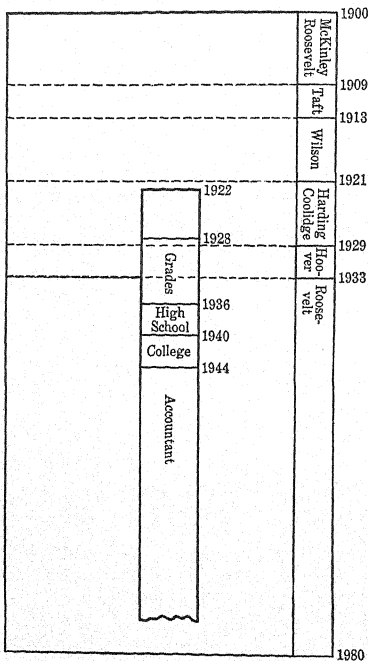
1. Show how the experience of some explorer illustrates the definition of the word *adventure*. Was co-operation needed in his expedition?

2. A seventeen-year-old high-school boy longed for an automobile. He found that he could buy a secondhand car for \$75, so he set out on the adventure of earning the money. His mother usually hired a man to wash the windows. The boy asked for that job. His father offered him a ticket to a college football game. He asked if he might have the money instead. While the crowds passed his home on their way to the game, they saw him on a ladder washing windows. He overheard, "Poor John, can't go to the game, has to stay home and drudge." Chuckling to himself, he said, "Little do they know of the double money I'm earning, the price of a ticket and window-washing wages. Wait until they see my car!" The boy had made three decisions in his adventure: to buy a car for which he had no money, to take every chance job to earn that money, and to give up another pleasure in his pursuit of the car.

Write an account of some adventure of your own and of the price you paid.

3. Take a sheet of your notebook, placing the binding edge at the top. Centered on this sheet draw an oblong $5'' \times 10''$. Name the left $5''$ line 1900, and the right $5''$ line 1980. $\frac{1}{8}''$ equals one year. Lay off on the upper $10''$ line points for the years, 1909, 1913, 1921, 1929, 1933. From these points, parallel with the $5''$ lines, draw dotted lines across the rectangle. $\frac{3}{4}''$ below the top $10''$ line, draw across the oblong a line parallel to the $10''$ lines. In the proper $\frac{3}{4}''$ spaces at the tops, place the names of the presidents of the United States. On the upper line place a dot indicating the year of your birth. Directly under this dot and centered in the lower oblong ($4\frac{1}{4}'' \times 10''$) draw the left end of a rectangle $\frac{1}{2}''$ wide. Draw the sides of the rectangle about $8''$ long, making the right $\frac{1}{2}''$ end a broken line. On the left $\frac{1}{2}''$ line write the date of your birth. This $\frac{1}{2}''$ rectangle

may represent the span of your life. Block off in this rectangle the years you have been in the grades and the years you expect to attend junior and senior high school, and label



the spaces. Do the same for college, if you hope to go to college. Then write in the rectangle the occupation which you plan to enter when you have finished your preparation.

4. What do you think the rest of the one hundred twenty-two million inhabitants of the United States are doing, since only forty-eight million are engaged in "gainful occupations"? Does this mean that the forty-eight million are supporting all the others? If not, how are the others supported?

5. Try to find what a blind person may do to earn a living; a deaf person; a cripple without hands.

6. Name ten ways in which you think that you yourself might succeed.

7. On a page in your notebook, make a table like the one below. From an *Abstract of Occupation Statistics* of the United States, or the *Population-Occupation* volume of the United States Census for 1930, find figures to fill the blanks. Use totals only.

OCCUPATION	MALE	FEMALE	TOTAL
Agriculture			
Forestry and fishing			
Extraction of minerals			
Manufacturing and mechanical industries			
Transportation and communication			
Trade (commerce)			
Public service (government service)			
Professional service			
Domestic and personal service			
Clerical occupations			
Total			

Appreciation. Studying the work of the world will be an adventure in itself. We shall find that the paths from which to choose cross in such a way that one could scarcely exist without the help of the others. This we call interdependence. We shall have a real thrill in learning to see every part of the picture of the world's occupations. This understanding of the other person's work will keep us from looking down on any honest job. As we get our picture of various kinds of occupations we shall feel the importance of all, and shall respect the risk, the labor, the hard preparation, and the cares of each. On the one hand it will keep us from saying with scorn that the white-collar job is an easy road, while on the other hand, we shall not feel that those who have clean work are superior to the laborers.

Very likely you study music in your school. You may sing in a chorus or play in an orchestra or band, or you may even take private lessons. Perhaps also you are taking a course called "music appreciation." Here, though you may never hope to perform yourself, you are to learn to enjoy the work of the musician. You will respect him more as you realize how difficult it is for him to get the results that he seeks. For the same reason it is good to learn something about the actual work of the farmer, the factory worker, the salesman, the executive, and the inventor.

As others see us. The opinions of two foreigners may give us a better view of ourselves. On visiting this country, the well-known English writer, J. B. Priestley, wrote: "There was the office man, the man caught in the net of business, who was usually pasty-faced, spectacled, worried. . . . Then there was the outdoor working man — the truck-drivers, the railway men, and so forth. . . . It is impossible not to have respect for these big fellows in their blue overalls . . . they carry themselves more like free men than workmen in Europe do. . . . If there are more and more of such fellows, then there is nothing fundamentally

wrong with America.”¹ Our own American author, James Truslow Adams, tells us that a visitor, a young Frenchman, said to him that the strongest of his new impressions in this country was, “the way that everyone of every sort looks you right in the eye without a thought of inequality.”² It should be our glory to keep in America this spirit of freedom and equality. It is here probably because there has been opportunity according to ability and effort. We must keep it by guarding that opportunity and by respecting ourselves if we do well the work which our ability and best efforts bring to us.

HOW THIS NETWORK OF OCCUPATIONS HAS GROWN FROM SIMPLE CONDITIONS

Different long ago. We can understand our own lives better when we compare them with those of people in other places or other times. The selection of an occupation has not always been such a hard problem. If we can get a picture of Europe from the tenth century to the beginning of the nineteenth, we shall find that this problem gradually grew more difficult. We are looking, you see, back to hundreds of years before Columbus discovered America, to a time when the ancestors of most of us lived in Europe. We shall see, in the earliest part of our picture, that it was not so hard for these ancestors of ours to choose their work in the world as it is for us. A thousand years ago, there were not nearly so many kinds of work from which to choose; nor was there much opportunity for the individual to select what he wished.

The individual life. Imagine yourself living in the tenth century. Because those were dangerous times with no organized government, the weak were obliged to put their

¹ From “Grand Canyon,” by J. B. Priestley. *Harper's Magazine*, February, 1935. Used by permission of the author and *Harper's Magazine*.

² Adams, J. T., *Epic of America*. Little, Brown & Co. Used by permission of the author.

trust in the strong for protection. On elevated land the more powerful men erected for their families wooden or stone towers. These were fortified with mounds and moats, and in the court thus enclosed were dwellings for relatives, friends, and servants of the builders. Within these enclosures there had to be produced almost everything that the occupants needed for their daily life. The boys and the girls growing up in any of these places could not choose their work if they would. The owner apportioned the work according to his judgment among those who lived within his enclosure. He himself was a soldier who trained some to help in defending his household. He was also a farmer, who appointed others to oversee the planting and garnering of grain in the fields adjoining his estate. Still others were trained as artisans to make the instruments of warfare and the tools for daily work. The girls were taught weaving and dyeing. All were obliged to do the work assigned to them. Their reward was protection. They lived their lives in this one enclosure and dared have little contact with other people. There was scarcely any trade.

Feudal times. But before long this simple life became more complicated. The households grew so much larger that by the eleventh century the strongest of the masters had built themselves castles of stone. Smaller landholders were willing to do certain work for the stronger men, the lords, that they might in turn be protected by them. New lands were added to the larger households and new houses and workshops for the artisans were constructed. The castles were equipped with stronger walls and more towers so that they might offer protection to all of the lord's dependents. Thus the work for builders grew. More occupations were opening up.

The nobility. The masters of the castles and the smaller landholders belonged to the class called noblemen. As their chief business was warfare, their sons were trained to be

warriors. At about the age of seven, the boys were sent to a friend's castle, where they served for years first as pages, and later as squires, until finally with due ceremony they became knights. If you had been one of these boys, would you have wished for some other occupation? Think of the thrill that came with the accolade, the joy of receiving the golden spurs, and most of all the excitement of that life of adventure. Not only did they have private adventures, but these knights also helped their lord in his warfare and fought to guard all who had a claim on his protection. Some day these knights would inherit land and dependents of their own. The plan of their lives was pretty well settled when they were born.

The workers. In general, in feudal times, there seemed to be something for everyone to do. When you study the history of this period, you will learn how it happened that the land and the work of the people were divided in a definite way. Just now we need to know that in charge of almost every piece of land there was a nobleman, that over him was a higher nobleman who protected many tracts of land, and that under the lesser nobleman were other landholders whom he in turn protected. On these estates around the strong house or castle were all sorts of workmen, serving the lord and his household, making the clothes, the shoes, the armor, and everything needed for those in the castle. On vast tracts of surrounding land serfs tilled the soil, producing food for the warriors. The serf belonged to his lord's soil, and could not leave to find work elsewhere. In turn his lord protected him. All these — soldiers, artisans, serfs — were, in a way, bound together. Each knew what his particular work was. There was not much need for helping boys to choose their occupations.

The monks. One calling was open to all from the poorest peasant to the richest nobleman. This career was in the monastery, where men devoted themselves to a religious

life apart from the world. They entered of their own choice, but they had to give up family life and the hope of any independent adventure in the future. Much that was of great value in farming, study, and art was accomplished

here, but the men were under orders for every moment of their time. They had decided on their way of life and might not change.

Change after the eleventh century. This rather simple form of life gradually changed; men became less dependent upon their lords; new work developed.

The craftsmen. The craftsmen who made armor, furniture, clothing, and tools for their overlord gradually had the opportunity to sell some of their handicraft, first to neighboring estates, and later in a wider market. Their shops



A MONK COPYING A MANUSCRIPT BY HAND

This is the way men made books in the Middle Ages. One man did all the work on a book. It was his task in the monastery.

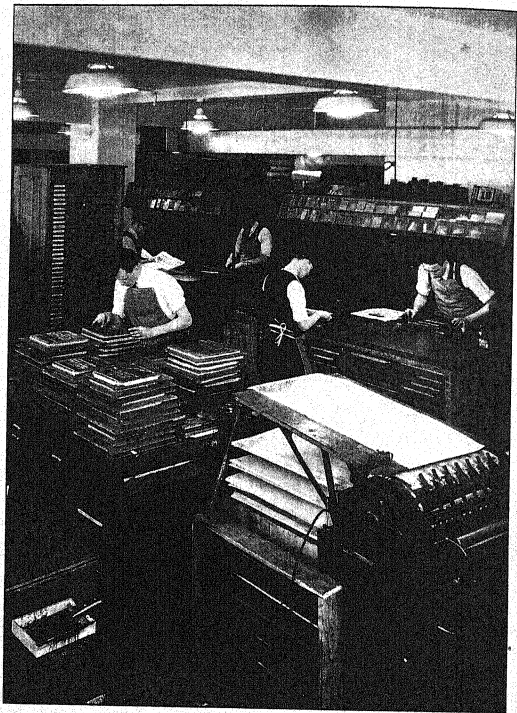
in which they both made and sold these products became more important. If you had been the son of a craftsman at that time, you would probably have learned your father's craft. It was practically impossible to enter any different

occupation. Early in life you would have been apprenticed to a master workman. You would have lived with him for four, six, or eight years, until you had become skilled enough to be called a journeyman. If your father had enough money, and you had passed the test of skill, you might finally have become a master workman with a shop of your own. Because of the long training, when a trade was once undertaken it was almost certain to become a lifework. There was not yet much opportunity to choose one's occupation.

The merchants. As it grew safer to sell goods from place to place, more men became merchants. For a long time they were under the protection of their lords. Later they were controlled and protected by the merchant guilds. A new occupation with a new possibility of adventure was opening up.

From the fifteenth to the eighteenth century. Conditions changed steadily from the fifteenth to the eighteenth century. You have learned in your history of the discoveries during the first part of this period. There were inventions, too, among them those of printing and paper-making. The people became more interested in books, in art, in architecture, and in science. Because of these discoveries and interests, there developed many new kinds of work, and thus a greater variety of occupations from which to choose. Modern times had begun, but still work went on rather simply. In their homes craftsmen produced goods; they sold them from the little shops in front of the workrooms or at the nearest fair in market time.

The Industrial Revolution. Then almost two hundred years ago, something happened that changed all this. Men discovered that things could be made more quickly. They not only invented machines by which more work could be accomplished, but they also found that water power and steam vastly multiplied the amount. Since that time



MODERN BOOKMAKING

Photo by Kaufmann & Fabry

Each person has his task, but it is only a part of the whole. Working with the aid of complicated machinery, the men produce excellent results. How did the Industrial Revolution affect this industry?

inventions have fairly tripped over one another, so fast have they come. Some of these have caused a great number who worked in the old way to lose their jobs, and have led many to prepare for new tasks. New types of work are constantly coming into existence. Thirty years ago, how many people specialized in gas engines? How many were testing metals for modern machinery? Who thought of such a task as broadcasting a great political convention over the radio? How many boys and girls hoped to become motion-picture stars or airplane pilots?

What about girls? Even the small choice of occupations of this past time belonged almost entirely to boys. To be sure, the peasant girls often worked with their brothers in the fields. Those in the castles and manor houses learned to use the distaff, to embroider, and to be skilled in the art of dyeing, thus preparing themselves for marriage with a knight. But modern girls look forward to careers almost as enthusiastically as modern boys.

QUESTIONS AND EXERCISES

1. Imagine yourself living in one of the enclosures of the ninth or tenth centuries. Describe a day of your life in such a place, the work you would do, and how you might feel about other possibilities.

2. Prepare a talk on the life of one of the following in feudal times: a knight, a girl in a castle, a serf, a monk, an artisan, a musician.

3. Compare the life of a craftsman of the Middle Ages with that of a factory worker of the present day.

4. Make two lists: one of the possibilities open to a boy or girl of the Middle Ages, the other of the possibilities of today. Your lists will not be long. Keep them in your notebook and as you learn of other opportunities, add them.

CATASTROPHES IN THE ADVENTURE

If you were starting out on an exploring expedition, you would know beforehand that many things might happen to interrupt your progress. So it has always been with the adventure of work in this country. Since the earliest days of the United States, there have been a number of periods of panic, depression, or hard times. In these times large numbers of men and women who were settled in their occupations have lost their jobs. Unemployment has been a hard part of the adventure.

Causes. Historians give us various reasons for these calamities. They have almost always happened after wars. Wars cause so much destruction that immediately afterward prices are very high. At the same time wages also increase, and both workers and employers spend their money in a reckless fashion. Then people wish to have more money and try to get it without hard work. They begin to speculate. Business resembles a soap-bubble; when it becomes big enough, it bursts. When this happens, the rich men lose money and the workmen lose their jobs.

Remedies. It has always taken a few years to recover from these depressions, and the recovery has come in various ways. In the early days when hard times came, men moved westward, for there were vacant lands on which they could start anew. Sometimes Congress has passed acts by which the condition has been greatly helped.

But there has been one improvement which, while it helps business, at the same time causes unemployment. This is the invention and use of new machinery. There is not so much land in the West, and acts of Congress cannot prevent inventors from helping business men to produce more with fewer men. We must look at this part of the adventure as just another result of the Industrial Revolution which began in the eighteenth century.

But you are facing a new industrial revolution. We are told that in 1935 eighty-three automobile workers could do the same job that had required one hundred in 1932. Surely advances in production must result in unemployment. Private agencies and government relief have always aided the unemployed, but this kind of aid can be only temporary. About the only permanent cure that men have seen thus far is to shorten the hours and term of service of working people so that greater numbers may be employed.

Individual responsibility. What should be the attitude of individuals living in a period of unemployment? At such a time many kinds of work die out, others change from day to day. You must, then, study the occupational world. You must investigate two or three fields of work thoroughly. When you start to work, you may have to take the very first job of any sort that you can get, but you must make it just as important as it can possibly be. Meanwhile you must constantly be preparing for something harder and therefore better for you. Then if you are on the lookout for the next step, you will find it and be ready for it.

The purpose of this book. These lessons are to give you a view of the wonders of the work of the world together with the government's part in protecting and controlling that work, and to teach you how to find the necessary facts so that you may choose what you will do; that you may do your part as a citizen; and that you may plan your leisure time. You cannot plan the whole course of your adventure. Too many unexpected things are sure to come which prevent that. Above all, you must learn how you and your work fit into the pattern of the adventure of life for all.

QUESTIONS AND EXERCISES

1. Fill in the following diagram from facts found in your United States history textbook or from a conference with your history teacher. The dates represent the beginning of

four times of depression. Find the date of the end; the cause or causes; the remedies tried.

PERIOD	1819-	1837-	1873-	1929-
CAUSES .				
REMEDIES .				

2. By term of service is meant the number of years that a man may work at his job. Do you know of any plan by which he might pay his expenses for the rest of his life, if he retires at the age of sixty-five?

3. The members of the class should start immediately to collect material that will be useful when they are ready to study occupations. Two plans should be inaugurated:

a. The class should be divided into groups to each of which is assigned one class of occupations according to those treated in the chapters in Book Two. Then each one in the group should choose an address to which to write for information in regard to that occupation. This is simply a service to the class so that material may be on hand when the members choose particular occupations to investigate.

b. Each member of the class should start a box of clippings. Be on the lookout for all possible facts and pictures that you may need later to illustrate the study of your adventure.

CHAPTER II

A CHART FOR YOUR ADVENTURE

"Well *this* turn goes to the hill, I suppose — no, it doesn't! This goes straight back to the house! Well then, I'll try it the other way. I'm *not* going in again yet. I know I should have to get through the Looking-glass again — back into the old room — and there'd be an end of all my adventures!" — LEWIS CARROLL ¹

The problem. You are face to face, then, with a problem, but do not be discouraged if it seems bewildering. Sometimes you will be confused about the choice of the path that you are to take. You may ask: "Do the paths lead anywhere? Are they not too crowded already? Can I ever pass the hazards that I see in the way?" You are probably as puzzled as Alice was as she journeyed through the looking-glass world. Do you remember how she could never tell whither the paths in the garden led? Every one that she chose brought her back to the house from which she started. Even when she ran as fast as she could, she made no progress at all, but always saw beside her the same trees and flowers. She asked the advice of many strange creatures, but none helped very much. She did not understand what it was all about, until she wakened from her sleep and found she had been dreaming.

Sometimes when we look at the hundreds of occupations in the world, we feel just as Alice did in her looking-glass world. Where will the paths lead? Can we find reliable facts that will help us to discover our way? Can we really go ahead if we work hard? Instead of waking to discover

¹ Carroll, Lewis, *Through the Looking Glass and What Alice Found There*, Chapter II. The Macmillan Company.

it all a dream, shall we be able to plan a course of action and find at last that we have taken our part well in the work of the world?

The chart. How then from the numerous occupations of this age is one to choose his work? Are there any directions that might help one to decide, as there are rules that help to develop strength or to study a lesson, to make a cake or to pilot an airplane? People who have had experience in guiding others in solving this problem advise that you consider the following points before deciding on your lifework. If you study both yourself and the occupations, and answer these questions, you will have a sort of chart for your adventure.

1. What are your interests and tastes?
2. What are your abilities?
3. What preparation is required?
4. What opportunities are offered?
5. What are the surroundings and the conditions of work?
6. What are the compensations both in money and in other values?

Interests and tastes. The first question to ask is, "What are my interests? What do I like best to do?" Did you ever say, "I want to drop that study. It does not interest me"? How unfortunate it will be if, on this adventure, you single out some work simply because there is an opening or you will receive good pay, and then some day discover, as you have with certain studies, that it does not interest you, and that you are unhappy in it! How can you tell? For one thing you are pretty sure to be interested in what you can do well. But with study and practice you can increase your ability, and as you find yourself mastering a task, your interest will grow. If in the case of that study that did not "interest you," someone had persuaded you to stand by until you conquered, your feeling toward it might have changed. Someone should have helped you to investigate its pos-

sibilities. You must thus investigate many occupations before you can know where your greatest interest lies. A young girl wondered what kind of work she should undertake. "What are your interests and tastes?" asked a friend. She replied, "I must work with little children; and I must do something artistic." Thus she felt that the first question for her chart was answered, but she had not yet found the occupation she wished. She had five more questions to answer.

Pairs of interest. In studying your interests and tastes, ask yourselves the following questions:

Do you like better to

- | | | |
|---|----|---|
| Work with your hands | or | work with your head? |
| Work indoors | or | work out-of-doors? |
| Work where you will meet many people | or | work in a quiet place where there are only a few? |
| Do things every day in about the same way | or | think out new schemes? |

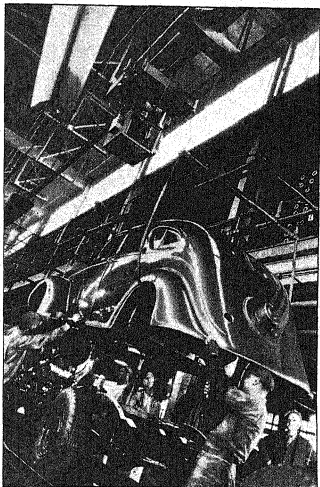


Photo by Philip D. Gendreau, N. Y.

Here we see men lowering an auto body onto its chassis in an automobile plant. Would you be interested in working on automobiles?

Take a little risk about results	or	work steadily and receive a definite amount of pay?
Plan work and tell others what to do	or	carry out the orders for which others are responsible?
Plan a piece of work which you perform entirely alone	or	work in co-operation with a group?

Abilities. Second, you must discover your abilities. What can you do best? Young men have spent years in preparation before they found out that they could never become good physicians or engineers. It would have been better for them if they had become good farmers rather than poor doctors or skillful mechanics rather than blundering engineers. There are two or three methods that will help you to discover what you can do best.

The trial-and-error plan. To a certain extent you can try out some types of work by getting jobs in the summer. One girl with a real talent for sewing and designing tried to earn her living by working in an office. Twice she obtained positions and both times she was dismissed because she was unable to settle down to the routine of office work. Her ability lay in another direction, and she found that it was foolish to spend her energy on something for which she was not fitted. You would waste a great deal of time, however, if you should search for your ability by trying out many occupations. There must also be other methods.

Tests. Much time is being spent in these days by people who are trying to discover tests that will show where your ability lies. It is slow work to find a good test, just as it is slow work to find a real cure for a disease. There are tests for discovering ability in music, in aviation, in mechanics, and in a few other fields. Do not believe people who claim that by a few simple experiments they can tell you just what should be your lifework. These people are jumping at

conclusions too quickly, or they are trying to make money on false pretenses. Do not pay money to be tested. Probably the tests that have been proved will be given right in your school. Do not let anyone decide what you should do by feeling the bumps on your head or by looking at the size of your ears or nose. No one can sit in an office and tell everyone who comes to consult him just what work he should undertake. The people who claim that they can do this are the false guides that you meet in the adventure of life. You could easily prove this if you should visit three or four such advisers. Probably each one would give you different advice.

Study yourself. How, then, can you discover your ability? You will have to do this for yourself. In summer and after school try to find a job in the work where your chief interest lies; take every test recommended by people who really know; think the question over carefully as you study the requirements of various occupations; ask yourself whether your interest and taste for some particular activity are so strong that you can overcome every discouragement and cultivate the ability to succeed. Then, finally, when you have done all this, you must try to decide for yourself. You will discover some things that you never can do well. These, of course, you must avoid. You may find work for which you have a special talent. You will surely choose such work for your occupation. But even though you have no unusual gifts you will find many occupations in which it will be possible for you to do very good work. Then,

“Study yourselves; and most of all note well
Wherein kind Nature meant you to excel.”¹

The preparation. The third question is, “How am I to get ready for my adventure?” In other words, “Can I afford the right equipment?” The knight had to have a horse, the proper trappings, a good sword, and an adequate

¹ Longfellow, *Morituri Salutamur*.

suit of armor. Learn the necessary equipment for the occupation for which you feel you have the ability. You may find that the preparation is impossible because the expense is too great. In such cases there is generally another allied occupation the requirements for which you can master in a shorter time. Select the latter rather than take the one for which you cannot get sufficient training. Many a person



It takes seven years of apprenticeship to learn the art of pottery making.

has been unhappy in his work because he has not been well prepared. If, however, you really want to undertake some vocation for which the preparation must be long and hard, beware of the temptation to give up before you have done your best to get the training. To fit yourself into the right occupation is worth the struggle it takes.

The opportunities. The fourth point to consider is whether there will be an opportunity for you to enter the work you choose. How would the ability to add and divide quickly help you if all the business offices had such work done with comptometers? How are you to know what the

opportunities are? For one thing, the Bureau of the Census reports how many people are now engaged in each occupation. This may help a little. In general, the more people there are in a particular occupation, the more likely you will be to find openings. The fewer chances there are in the work you desire, the more certain you must be that you are well fitted for your chosen career. Then, is the number of opportunities increasing or decreasing? For instance, you will find that there is not so much demand for harness makers or veterinarians as there was when your father was a boy, but that there is much more room for airplane mechanics and gas-engine experts. What is true for boys is not necessarily true for girls; they must make a special study.

Opportunities for women. In the last hundred years, the number of occupations open to women has greatly increased. One author writing about women workers in New England says: "As teacher, woman's services were not in demand, and nearly all the arts, the professions, and even the trades and industries, were closed to her, there being, as late as 1840, only seven vocations, outside the home, into which the women of New England had entered. These were teaching,



© G. A. Douglas from Gendreau, N. Y.

Work in bookbinderies was one of the first opportunities for women outside the home.

needlework, keeping boarders, factory labor, type-setting, folding and stitching in book-binderies. In 1885 there were 113 industries, which, subdivided, make 17,357 occupations. Women have found employment in 4,467 of these, while of the 113 general branches, they are found in all but seven."¹ In the late census reports, it takes many pages just to list the names of the occupations. Those that do not include women are only a tiny fraction of the entire number.

Yet if you can imagine a girl and a boy starting in to work with exactly the same ability, in exactly the same kind of work, and with the same desire to reach a high place, you will be obliged to complete your picture with the boy a long way ahead of the girl. Girls have two disadvantages: they receive lower pay than the boys, and they have a smaller chance to advance. Consider opportunities in manufacturing as an example. In Illinois, the average pay for women workers in factories is less than half that of the men. In New York, it is a little over half. As to advancing, the census reports give us the following figures: Among factory workers, we find that the men outnumber the women three to one, while in the group of foremen and overseers, they outnumber the women nine to one, and among the still higher group of managers and superintendents, the men outnumber the women almost forty to one.

Why do the men have this advantage? Various explanations have been given. Some employers say that girls are too uncertain, that they are likely to get married and leave at any time, so that it does not pay to push them up in the business. Others say that women are not strong enough physically to do the work of the more responsible positions. Many people, women as well as men, do not really believe that women are capable of filling as high positions as men.

¹ Robinson, Harriet H., *Loom and Spindle*, p. 4. New York, Thomas Y. Crowell & Co., 1898. Used by permission of the publishers.

There are not nearly so many women who wish to fill them. This makes what we call a prejudice against placing women in high positions. It is very hard to break through the walls of prejudice. Few expect the girl to become a forewoman, and no one expects her to become a manager or a superintendent. Her employers are glad to see that she can work quickly and skillfully with her hands, but the thought of

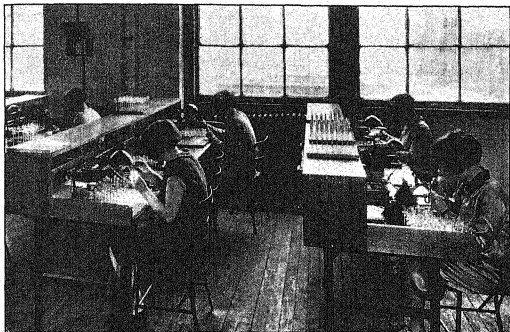


Photo by Kaufmann & Fabry

By means of this process of spot welding either metal or glass may be fused. Since cleanliness is so necessary in the process, the girls have the advantage of working in a clean place.

pushing her higher never comes. So the girl will be obliged to be much more determined and to work much harder if she hopes to reach a place as high as does the boy with equal ability.

The surroundings and conditions. Next think of the surroundings under which you will work. Your adventure, remember, is not to be for a few months, but for a lifetime. You are choosing a setting in which you may live for twenty, thirty, or even more years. Think what fellow workers you

will have. Be sure that you will be satisfied with the lifelong company you choose. You must look, also, to the health conditions. Is your physical strength equal to the task that you wish to undertake? What will be your hours of labor? But even though you should discover that your chosen work might lead you into conditions that are not to your taste, your answers to the other five questions might cause you to take that path in spite of all.

Our census report shows thousands of occupations; most of these are not only useful but also necessary. If you find an opportunity in one which interests you and for which you can qualify, it is possible that you may have a part in making the surroundings better both for yourself and for your fellow workmen. If the work is necessary, someone must either make the best of the conditions as they are or must help to improve them. Why shouldn't you?

Compensations. The money that you will receive for your work is another important consideration. In this adventure of living you must be independent; you must not be a burden upon others. Remember that if you do not earn enough to support yourself, someone else must earn it for you. In addition you will probably have others besides yourself for whom you must provide a living. You must choose an occupation that will bring you enough money so that no one will have to help you to pay your own expenses or those of your dependents. A man must work hard if he earns enough to maintain the health of his family and to provide for their education. It is not an easy task. Many people are earning much less money than they need. Even in 1929, a year when all incomes were at their height, more than half of the people had incomes which would hardly suffice to support a family and, at the same time, save for old age. At that time of all the people in the United States who had incomes

- 38.8% received less than \$1,000 a year.
- 33.4% received more than \$1,000 and less than \$1,500.
- 14.3% received more than \$1,500 and less than \$2,000.
- 7.6% received more than \$2,000 and less than \$3,000.
- 3.6% received more than \$3,000 and less than \$5,000.
- 2.3% received more than \$5,000.¹

It is not possible to say why so many people are earning so much less money than they should have. You should think carefully how you may choose a vocation which will provide what you will need. Do not select the work that pays the highest in the beginning. You must look for a chance to advance so that ten or twenty years from now you will be earning enough to meet the obligations that will be yours.

What will you need? Even now by making a budget, you can try to figure out how much you will need. You must consider your lodging, board, clothes, transportation, recreation, gifts at Christmas and other times, incidentals, such as doctor's and dentist's bills, and books or other means of education. You will give some money to charity, and you must plan to put aside on every pay day a sum for the future. If you try to make a budget, you may get some idea of what you will have to earn.

What can you earn? After you have figured out what you will need, how are you to learn about the financial rewards in the various occupations? You can find government reports which will show wages in a number of vocations. When public works such as buildings, bridges, or sewage plants are constructed, reports are published telling the pay of the various people engaged in the work, of the engineers, lawyers, foremen, skilled workmen, unskilled workmen, bookkeepers, clerks, and others. From labor unions, wage-scales for skilled workmen may be learned. Employment agencies have figures regarding many kinds of work. Re-

¹ National Bureau of Economic Research.

ports may be found of all civil-service employees and of ministers, judges, and other public servants. If you hear that any person is earning a certain amount for a certain job, do not jump to the conclusion that all people in that work are getting the same. The pay is often different in



Real skill is needed in the shaping of pottery by hand. You will notice that both hands are busy, and also that the worker takes pride in his creation.

different parts of the country. It may increase or decrease from one year to the next. In any one locality, it will vary according to the company for which you work or according to your own particular ability. You must find out the probable advance in income as you grow through experience. You must know also that ten dollars in New York is not the same as ten dollars in a small town where the cost of living

is less. Then you must consider the term of service in your occupation, for in some, fancy dancing and professional ball-playing, for example, one cannot do one's best work for longer than a few years. In studying your occupation you must investigate these points for yourself.



The satisfaction of seeing a beautifully fashioned product is one of the compensations of this occupation.

Other compensations. There are rewards besides the money returns. Perhaps you are eager to make a big reputation and would be happy with that regardless of the money that you receive. You might be satisfied to know that you were conquering hard tasks either with your head or with your hands. The feeling that you were producing something beautiful might be the best compensation for you. Again you may have the kind of spirit that is happiest when you are doing something for the welfare of others.

In this machine age when there is much driving and monotonous work, you may find your compensation in the short hours that are almost sure to come and to bring you leisure time in which to do the work that most interests you.

An airplane view. In Book Two you are to take a sort of airplane view of the big groups of occupations. From these you will be able to choose two or three which you would like to study intensively. You may be certain that no matter which you choose, it is dependent upon all the others. You cannot understand even your own life unless you have a view of the work of all.

As you study each group, you should ask yourself the following questions both in regard to yourself and in regard to the occupation :

YOURSELF

THE OCCUPATION

- | | |
|---|--|
| 1. What are my interests and tastes? | 1. What are the conditions of the occupation? Do they satisfy my interests and tastes? |
| 2. What is my ability? | 2. What ability does the occupation require? |
| 3. What preparation can I get? | 3. What preparation does the occupation demand? |
| 4. Am I willing to adjust myself to the best opportunities? | 4. What opportunity is there to enter and to advance? |
| 5. What surroundings do I most desire? | 5. What surroundings does the occupation offer? |
| 6. What pay will I require? | 6. What is the probable income from this occupation? |

QUESTIONS AND EXERCISES

1. Make a table of three vertical columns with fourteen horizontal spaces like the one given. Head the three vertical columns as follows: *Abilities, Rating, Occupation*. In the fourteen spaces in Column 1 write names of abilities. Now in the spaces in the column called *Rating* and opposite

each of these points, rate yourself in each ability. If you have a great deal of physical strength, rate yourself *A* in the proper space, if it is only medium, put down *B*, and if you are weak, write in *C*, and so on for the other abilities. In the third column, write after each trait the name of an occupation for which you think this ability might be useful. Now study your diagram and ask yourself these questions about each point: "Should I like to cultivate this trait? How could I do it?"

ABILITIES	RATING	OCCUPATION
Physical strength . .		
Self-confidence . . .		
Mechanical skill . .		
Quickness in doing school work . . .		
Skill in writing themes		
Talent in art		
Talent in music . . .		
Leadership		
Power to concentrate .		
Ability to work with others		
Power to decide quickly		
Memory		
Resourcefulness . . .		
Ability to do things methodically . . .		

2. Draw an oblong with columns like the one below :

OCCUPATION	NUMBER IN IT IN 1920	NUMBER IN IT IN 1930	INCREASE OR DECREASE

Make spaces for ten occupations. In the *Abstract of Occupation Statistics* issued by the Bureau of the Census of the Department of Commerce, find the number in each of ten occupations that you choose for the spaces. Fill in the fourth space. Can you conclude anything about opportunities?

3. Every pupil in the class should find out the opinion of his father or some other relative or friend in regard to the number of opportunities in his particular occupation. Does he think there will be room for more or fewer people five years from now? After these opinions have been reported to the class, make a diagram like the following. Then grade the occupations according to opportunities: Good, Fair, Poor.

OCCUPATION	PLUMBING	BANKING	LAW		
Now . .					
In future .					

4. From the latest Bureau of the Census report on population by occupations, list those occupations in which women are not found.

5. What should you choose as the ideal surroundings of your life? What kind of people, what climate, what other conditions would satisfy you?

6. Draw a diagram like the following :

	DATE OF BIRTH						
	.	10	20	30	40	50	60 70
Epochs							
Income (monthly) .							
Savings for investment							
Income at 5% on investment							

Each vertical column represents ten years of your life.

In the horizontal "Epoch" column, write "grammar school," "high school," and the higher schools you hope to attend. Then write the vocation you expect to follow. In the "Income" spaces, place what you expect to earn through the years. Put down in the "Savings" column what you can save out of your income each month. Compute the income on your savings at 5%, and fill in the lower spaces. Write in the "Epoch" space when you expect to retire. Place all of these words as nearly as possible under the figures representing your age at the time for these schools, work, income, etc.

7. Make a list of the items for which you will be obliged to pay after you are actually earning your living. Then make a table of expenses, showing how much each of these will cost per month. Add these items and show how much you will need to earn. Make a red star on the place where this amount comes in your diagram in Question 6.

8. Look in *The Blue Book* or some similar yearbook of your state, and find the incomes of people in the occupations listed below. These may be found under such headings as *Salaries of City, County, or State Employees; Union Wages; Farm Wages*, etc. Then make tables of two columns each;

in one put the names of the occupations, in the other, the incomes: governor, mayor, clerk, assistants, janitor, superintendent of schools, lawyer, policeman, policewoman, probation officer, engineer, physician, nurse, librarian, chemist, plumber, stenographer, farm worker, instructor on playgrounds, bricklayer, carpenter, compositor, linotype operator, machinist, architect. Which of these will best satisfy the demands that you worked out in Question 7?

9. Which of the six points given in this chapter for consideration in choosing your lifework do you think most important? Why?

10. In each of the pairs of interests given on page 23 tell which one describes your interests and tastes best.

11. Tell honestly which of the things mentioned in the paragraph on tastes really appeals to you the most. Of course, your taste may change many times.

12. Choose some task not to your taste. For fifteen minutes a day, try to improve your ability in this. At the end of a week report to the class whether or not your interest has grown.

13. Be sure to keep for future reference the tables you have made.

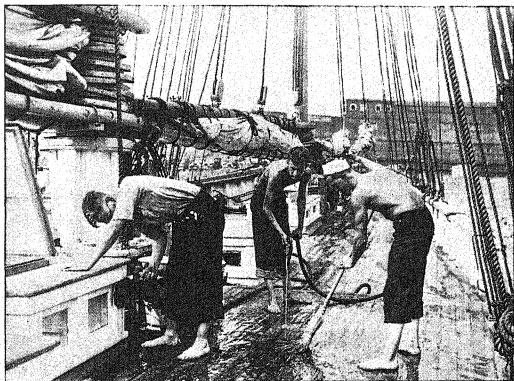
CHAPTER III

THE RULES OF THE GAME

Liberty exists in proportion to wholesome restraint. — DANIEL WEBSTER

SOURCES OF RULES

The knights of the Middle Ages had to know the rules of the game before they could enter the lists. People today



Underwood & Underwood

These scouts know that they must obey the rules of their adventure. They are stationed on the historic S.S. Pinta and have been assigned the duty of scrubbing the decks.

meet regulations in whatever they undertake. Lawmaking bodies, political conventions, in fact practically every business and club meeting must conform to "rules of order."

If you are a Boy Scout or a Girl Scout, if you belong to a baseball or basketball team, indeed, if you are a member of any club, you know how necessary rules are. Perhaps you have spent a summer in a camp. If each camper did not do the work assigned at the time appointed, or if he left his clothes on the floor, the camp would be a sad sight and the playtime would be spoiled for all. For the good of everyone all must obey the rules.

Government rules. Many rules have been made by federal, state, or local lawmaking bodies. These are called statute laws or ordinances. Everyone at times is affected by them. For instance, because of a federal law, travelers to foreign countries must allow the customs officers to examine their baggage when they return. Because of a state law, your father must obtain a license every year for his car, and because of a city ordinance, you may not be allowed to ride your bicycle on the sidewalk.

Occupational rules. In the occupational world there are many rules that you should learn before starting on your life work. Some are government laws, others are made by organizations and may affect you just as much as civic laws. Still others are not written down at all, but have grown up with your community. These are the rules of custom.

QUESTIONS AND EXERCISES

1. Give three rules that must be observed in some business of which you know.
2. Give four that must be obeyed in a scout camp.
3. Draw an 8" \times 5" rectangle. Invent a title for it when you have filled in the blanks. Draw a vertical line two inches from the left-hand side. Label the first column thus made *Source of the Law*. In six spaces under this write respectively: *National, State, County, City, School, and Home*. Label the second column *Laws*, and in the spaces here state one law of each area which affects you in any way.

SOURCE OF THE LAW	LAWS
National	
State . .	
County .	
City or town .	
School .	
Home .	

4. Why do you do the following: (a) walk on the right-hand side of the sidewalk, (b) stop your car on a red light, (c) arrive at school at a certain hour, (d) refrain from talking in a concert, (e) eat with your fork?

LAWS FOR WORKERS — TO PROTECT CHILDREN

The domestic system. Two hundred years ago, laws forbidding the employment of children at late hours or fixing the age at which they were permitted to do certain kinds of work were scarcely to be found. The way of living then was different from that which we have today. Many children worked for their parents in the home shop or on the home farm. Some were apprenticed at eight or ten years of age, but the arrangement was made between the father and the employer. The government kept hands off. Usually the apprentice lived at the home of the "master," who was bound by contract to teach him his trade, to feed and clothe him, and to punish him when necessary. Often the employer was the father's friend, and the conditions did not greatly differ from those of a boy working at home. The apprentice system, however, had its cruel side. Sometimes the apprentice was forced to work in cold, gloomy surroundings,

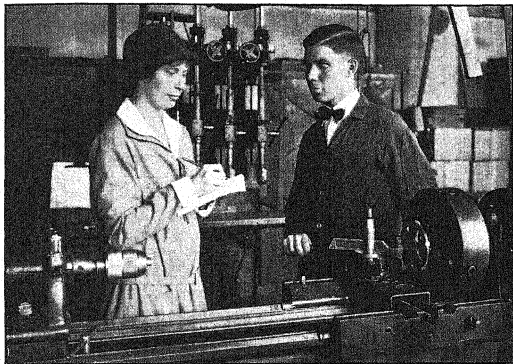
had few holidays, and not much to eat. His treatment depended a good deal upon the character of his master.

The factory system. After the invention of the steam engine over two hundred years ago, changes came in the conditions of work. The factory owners did not need skilled craftsmen to operate their machinery, and found that women and children were willing to do that simple work for a very small wage. Life became hard for children who were obliged to work. A few people living today can remember when very young boys and girls were sent to the factory. In Massachusetts one six-year-old youngster trudging to his work every morning attracted the attention of a man who regularly went the same way. He offered to carry the boy, and accordingly the mother would place him with his lunch box on the doorstep. He was usually asleep by the time the man came and did not wake up until he arrived at the factory. He needed the nap, for the hours of those working children were long — from early morning until late at night.

These long hours brought other hardships. There was no time for school; children grew up uneducated. There was no playtime, no outdoor life for them. Of course they were dwarfed and pale. Conditions were bad in the United States during the later eighteenth and early nineteenth centuries, but were worse in England because that was the center of the manufacturing world. There the children also worked in mines, where their lot was the hardest and cruelest of all.

Laws improving these conditions. From the beginning of the nineteenth century, investigations have been made, and laws have been passed for the purpose of making these conditions better. One law, however, or even two or three laws could not have brought about the improvements that we have today. The Constitution of the United States does not give to the national government the right to make a law in regard to child labor. That right is reserved for the

states. There is no state now that has not some sort of law for the protection of its child workers. At first in some states the laws said that children should not be employed in factories or mines for more than twelve hours a day, and that none under nine years of age should work. That was better than fifteen hours at six years of age. Later the working day was limited to ten hours. Then boys under thirteen



Courtesy of Children's Bureau, Washington, D. C.

This inspector checks to see that the child-labor laws are enforced.

were not allowed to work at all in underground mines. Later the nine-years minimum age for factory work was raised to ten years, and still later no children under eighteen years of age could be employed for more than ten hours a day. Now thirty-six states have an eight-hour law for children under sixteen, and every state has some kind of fourteen-year age limit for entering industry valid at least during school hours. Laws were also made to compel factories to have more light and ventilation, and to provide safety devices for the protection of children working with machinery. The National

Child Labor Committee¹ has done much to show the American people what work children are doing, and their reports have had their influence on many states in the passing of laws. Wherever such rules of the game are enforced, you may be sure that it is for your protection in order that when you are ready to take your place in the world of occupations, you may be physically and mentally fit.

QUESTIONS AND EXERCISES

1. Read Elizabeth Barrett Browning's poem, *The Cry of the Children*. What does it show about certain children in England in the middle of the last century?

2. What are the child-labor laws of your state? Copy the form below and fill in the answers to the questions.

From the laws of—.

1. How early in the morning may children under sixteen begin work?	
2. In what kinds of work may children under fourteen engage?	
3. Name five places in which children under fourteen may not work. . .	
4. How old must children be to work in these places?	
5. How old must one be to be legally employed in a bowling alley? . .	
6. What condition does the law require to be fulfilled before a child between fourteen and sixteen may work? .	
7. What special consideration is made for girls?	
8. What is the law in regard to the wages earned by children? . . .	

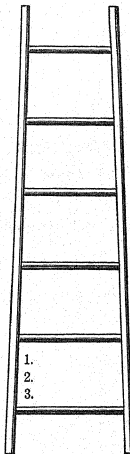
¹ The National Child Labor Committee, 419 Fourth Avenue, New York, N. Y.

3. (a) Have one member of the class write to the National Child Labor Committee to ask which state has the best child-labor law. (b) How many children from ten to fifteen years of age were gainfully employed in the United States in 1910, in 1920, in 1930? See census report.

4. Why do employers sometimes try to break these laws? Why do parents? Why do boys and girls?

5. What is the proposed child-labor amendment to the Constitution of the United States? Have one member of the class write to the Children's Bureau at Washington to find out how many states have voted in favor of it. How many are necessary to add it to the Constitution?

6. Draw for the class on the blackboard a diagram representing a ladder like the model. Label this *The Ladder of the Rise of the Children*. On the lowest rung write three facts about children in the early factory days. Include age, hours, and conditions of work. On four succeeding rungs write similar statements showing the improvements. When you have learned the answer to Question 5, write on the next rung three statements showing the improvements for which the child-labor amendment provides.



TO PROTECT WOMEN

During the past few centuries, very important changes have come in the employment of women. Women can now be found in almost every occupation. In 1930, 10,752,116 women were working for a living. Almost a million were working on farms and more than three million were in domestic service. There were 860,278 women in the teach-

ing profession and 1,986,830 were in clerical work. These are generally considered the chief occupations for working women, but almost two million were engaged in the manufacturing occupations. Your grandparents could tell you that, even in their memory, not nearly so many women were doing work outside their homes. It is only within the last forty or fifty years that they have been admitted to all of these occupations. This immense amount of work means that many rules of the adventure are necessary for the benefit of women as well as for children. But let us look back many centuries, and see how conditions have changed for women and what protection they now have.

In primitive times. In the days when men got their living by hunting and fishing, at first they and the women probably worked together. Then their duties were gradually divided, and while men killed the prey, the women dragged the dead animals home. They also gathered fruits and cared for the children. Later when men began to raise their own food, the women tilled the fields; they planted and harvested. It was the man's place to decide what the woman should do, and he treated her practically as a slave; for the male slaves and women worked together. Indeed he often either bought or stole his wife just as he did his slaves. At his death she might be buried with him or burned on his funeral pyre. Even now in some parts of Africa — where primitive life is still in existence — a wife may be bought for ten beads, a cow for fifteen.¹

Gradually a woman had more work to do in the house, preparing food and clothing, and caring for the children. But even as late as the Middle Ages she had few rights. If she was the wife of a peasant or of an artisan, her husband could flog her; she could own no property; she was expected to stay in the house, or at least never to leave the home farm; she had no access to the little learning of the times.

¹ Gras, N. B. S., *Introduction to Economic History*. Harper & Brothers.

Changes. Then slowly the position of women began to improve. A number of rights tardily came: women could not be held guilty of theft from their husbands; they could inherit, hold, and dispose of property. But still as late as the eighteenth century, courts of law would not admit their testimony, and in the laws they were classed with infants, idiots, and lunatics.

The Declaration of Independence. The Declaration of Independence gave America a new thought that soon had an effect on the position of women. John Adams's wife took a high stand for more rights for her sex. While John Adams was in attendance at the Continental Congress in Philadelphia, his wife, Abigail, her heart full of the spirit of independence of those times, wrote him:

I long to hear that you have declared an independency. And, by the way, in the new code of laws which I suppose it will be necessary for you to make, I desire you would remember the ladies and be more generous and favorable to them than your ancestors. Do not put such unlimited power into the hands of the husbands. . . . Why, then, not put it out of the power of the vicious and lawless to use us with cruelty and indignity with impunity? Men of sense in all ages abhor those customs which treat us only as the vassals of your sex.¹

Abigail Adams saw a century ahead of her times.

This control of woman seems, however, to have been chiefly in her home. It was her husband who had the right to control her time, her money, and her children. In many cases, the husband did not take advantage of his rights, and in as many others the wife was glad to be free of the responsibility. It is really because of woman's work in the occupations that laws for her protection have been needed. Before the Industrial Revolution, since most of the articles

¹ Adams, Charles Francis, *John Adams and Abigail Adams; Familiar Letters*, N. Y., Hurd and Houghton, 1876. Letter of March 31, 1776.

used in the home were made there by hand, all but the very wealthy women must have been busy from morning until night spinning, weaving, sewing, knitting, canning, and baking. Their work was "never done." If the girls worked for money, it was usually in some home.

The Industrial Revolution. But the Industrial Revolution made changes in this work of women, for, after the coming of machinery when the women no longer had so many varieties of activity in their homes, many of them followed the occupations into the factories. The factory took over spinning, weaving, sewing, and later, canning. All of these tasks that women once did in the home are now done in factories by machines which can be tended by women, since the pull of the control levers and the tying of broken threads do not need the strength of a man. But the lives of women as factory helpers have been very hard.

Bad conditions. Women worked as long as fifteen hours a day in the mines or in the mills; they had to be at the mills at half-past four in the morning; if they did not produce enough, the overseer beat them with a whip. In the mines, they were often harnessed to coal cars and forced to drag them while crawling on their hands and knees. Their history, indeed, has been much the same as that of the children: at first, long hours, overburdening tasks, and terrific conditions; then later, step by step, laws passed to make the conditions better.

Laws in the United States. It is particularly in regard to factories that these laws are needed. Some states, however, try to protect women in other kinds of work as well. In California, for instance, employed women may work only eight hours a day, and only forty-eight hours a week. This applies to factories, stores, hotels, hospitals, and a few other places of occupation. Women in general and professional offices may not work more than six days a week, unless time and a quarter is paid for the seventh day, and even so they

may work only forty-eight hours a week. California has limited the hours of work for practically all women workers, except agricultural workers and domestic servants. Some states insist upon certain rest days and some upon a certain time for meals and rest during each day. In twenty-three states, however, women may still work in factories for ten hours a day or more, while in five states there is no time limit. Thirteen states have made a minimum-wage law for women. That is, no one who employs women may pay them less than a certain amount.

A contrast. To be sure, women had worked as many as fifteen hours a day in their homes, but the variety of the work had relieved the strain. In the factory they often do one kind of work over and over, day after day. They may spend their time running up the seam of one sleeve after another; or inspecting little bits of rubber or wood or metal to see that they will go together properly; or pasting labels on boxes and bottles. One Government report says:

The chief results of this monotony are fatigue for the body and dullness for the mind. Doing one thing over and over again uses only one set of muscles, but uses them continuously, so that they have no time for rest, and quickly become overtired. When one simple action is repeated many times it becomes automatic, the interest goes, and where there is no interest there can be little mental activity.

Conclusion. It seems that for the comfort of mankind this monotonous work must be done by someone. If, however, the hours were shorter and the wages were high enough for decent living, then the fatigue would not be so great, and the women would have time for other interests that would help them to grow mentally and physically strong. Just as the Children's Bureau investigates and shows the public what children are actually doing, so the Women's Bureau prepares frequent reports on the condition of women.

QUESTIONS AND EXERCISES

1. Find out what laws have been passed for the protection of women in your state. Make a list of these under the headings of *hours, wages, working conditions*.

2. Give as many reasons as you can why a woman with five children and a husband who works ten hours a day should herself work only eight hours.

3. Would you rather work eight hours a day sewing seams in sleeves, or twelve hours a day making entire dresses? Give reasons.

4. Who is to blame if women have to work too many hours at too low wages? What can any individual do to make conditions better?

5. Define the following words: *vassals, impunity, limited, minimum*.

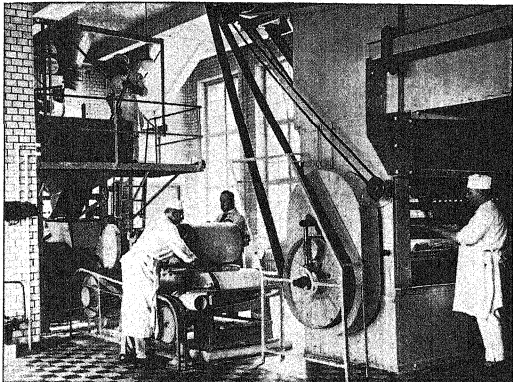
6. Make a ladder in regard to women similar to the ladder of the rise of the children.

TO PROTECT WORKMEN

Laws have been passed since the Industrial Revolution for the benefit of all workers — men, women, and children. In the early factory age, there were no rules for the protection of the workman. If he was injured, that was his misfortune; if he was killed, that was the misfortune of his widow and children. As the years have passed, however, the rights of the worker have come to be recognized, so that today we find detailed laws giving him protection.

Examples of laws. Some laws look to the health of the employed: the workrooms must be properly lighted; the ventilation must be watched; dust and foul fumes must be eliminated; washrooms must be at hand; and the employer must provide first aid and surgical care without charge. Other laws require the employer to protect the worker from injury while at work: guards, baffles, hoods, and screens

must be applied. Another law forces the employer to give compensation to men for accidents, and still another requires him to pay a sum of money to the widow in the event of the workman's death. Farm work does not come under these laws.



Photograph from Underwood & Underwood

In this picture you can see the screens used to protect workmen from revolving wheels and belts. Thirty-six thousand loaves of bread are baked in this oven every day.

Mechanic's lien. The laws of many of our states require still another protection. A workman might find, after building a garage or a sidewalk or a house or a barn, that the owner could not or would not pay the wages owed. The law steps in to protect the workman, and gives him first claim on the property until the wages are paid. If necessary, the owner's property may be sold in order to obtain money to pay the workman. If this law were not on the books, the owner of the property might order the worker off

his premises, and never pay the wages earned. Thus the law gives the mechanic, or workman, a lien (legal claim) so that he shall be paid.

Security. In 1935, Congress passed the Social Security Act. This act provides for a plan by which workers may be protected against unemployment and against a dependent old age. England has such a law, and already five¹ of our states have unemployment insurance and thirty-five have an old-age pension. The plan of this new rule of the game is that the expense shall be divided equally between the federal and the state governments. Both employers and employees shall contribute to the fund an amount equal to three per cent of the employees' wages. Thus when unemployment or old age comes, workers will be helped to provide for the necessities of life. There is also provision in the law for others who are not able to work.

QUESTIONS AND EXERCISES

1. Define the following: *baffles*, *compensation*, *premises*, *insurance*.

2. Show that all these laws whether for the benefit of men, women, or children are really a help to children.

3. In some graphic way show how workmen are protected. If you cannot think of a way of your own, you might draw a wall of three sections: 1, Hygiene and health; 2, Compensation for injuries; and 3, Protection in wages and hours. Have four or five stones, properly labeled, in each section.

4. Find three provisions in your state laws for the protection of workmen.

5. Has your state a plan of old-age pensions? of unemployment insurance? When there is no such plan, who supports workers when they are unemployed or when they are too old to work?

¹ New York, California, Washington, Utah, and New Hampshire.

OTHER REGULATIONS

Licenses. These laws in regard to workmen in general and women and children in particular were passed for the protection of people who are employed by others. Suppose, however, that you are to open a business of your own or to go into a profession. You must first find what the state requires of you before you may start your business or practice your profession. For numerous kinds of business, you will have to secure a license before you can begin. Licenses are usually obtained from some department of the state government. Cities and towns in turn insist that licenses be secured from the municipal government. The licenses required by the cities are chiefly for the purpose of securing revenue. These are required for such businesses as places of entertainment, bakeries, beauty parlors, confectioneries, drugstores, garages, and photograph galleries. The original idea of the state license was that of safeguarding the citizen. Hence lawyers, dentists, doctors, and others must have certificates from the state. The principle back of these state permits is that a person must be prepared for his profession, or the state will not allow him to practice. This principle carried a little farther requires licenses of mine owners and chauffeurs, but these particular permits are demanded not only with the idea of protecting innocent bystanders but also of protecting those who hold the licenses. Still another purpose is to keep down nuisances and to reduce the number of persons engaged in certain pursuits. And so peddlers, collectors of birds' eggs, hunters, and fishers must be licensed.

Trade unions. There have been trade unions in the United States for over one hundred years. Their object is to better conditions for the worker both at home and at work. It is largely through the unions that state laws have been passed compelling employers to furnish protection for

men, women, and children. On the other hand, members of the unions must submit to very strict regulations in order to obtain the benefits for which the unions are working. There is no law compelling any workman to join a union. Each one must make his own decision, but if he joins, he must obey the rules of the game as ordered by his union.

Advantages. The advantages of joining a trade union differ greatly according to the part of the country in which you live. You should know what these advantages are, and what good results the unions have accomplished. The trade union, through collective bargaining, has brought about higher wages and shorter hours. A good notion of the length of a worker's day, one hundred years ago, may be gained from the following statement by an early union of bricklayers:

A man toiling fifteen hours exposed to the scorching rays of the Summer Sun, returns to his home worried and dejected, and feels no relish for society or improvement.

So the members of this union decided that from April 1 to September 1 they would take it easy and work only from six in the morning to six in the evening! As organizations, trade unions have promoted the welfare of their members through education, health insurance, sick benefits, accident aids, help in times of unemployment, and by encouraging thrift, economy, and sobriety.

Most of the unions are for skilled workmen, these belonging to particular unions according to their trade. The American Federation of Labor is an organization made up of unions as members. These unions in 1934 represented 2,581,343 people. In that year, the American Federation of Labor decided to include all employees of an industry or a company regardless of their craft.

Rules of the unions. The unions demand an initiation fee, and the payment of monthly dues. In most trades

before you can receive a member's card, you must go through a period of apprenticeship. After you get your card, you are not allowed to take a job at a wage less than that agreed upon by the union. You must live up to the rules relating to hours, too, and must not work overtime or on holidays without demanding the required amount of additional pay. Sometimes, even against your desire, you may be obliged to help in a boycott, or to join a strike, or to refuse to work in an open shop. Certain trades you may find very difficult to enter. In some cities the unions prevent the overcrowding of these trades by limiting the number admitted to apprenticeship. Often the openings are so few that there is no opportunity for any but relatives or close friends of members of the trade union. This is particularly true in certain cities for such workers as tile setters, plasterers, lathers, butchers, bricklayers, electricians on inside wiring, cleaners and dyers, and sign painters. For such trades it appears useless to begin training unless you have reason to know that you will be admitted to the union.

Other organizations. Many professional and business men and women also organize. If you become a business or professional person, it will usually be to your advantage to enter one of these organizations, but whether you do or not, you will want to know the things that they agree to stand for, and as a rule you will be likely to follow these. For instance, in most of the professions, one cannot belong to the organization unless he agrees not to advertise. If a man breaks this rule, people in his profession and even those outside will lose confidence in him. The rules that professional organizations adopt are called codes of ethics. They show certain obligations of the members.

In 1933, on account of the tremendous amount of unemployment, Congress passed the National Industrial Recovery Act as an emergency measure. According to this act, employers in each industry were asked to meet and draw up

codes, agreeing to pay no employee less than a certain wage and to allow each one to work only a certain number of hours per week. By shortening the hours, it was hoped that more workers could be employed, and, by increasing the pay, that they would be able to buy more goods, and thus business would improve. In 1935 the Federal Supreme Court decided that such legislation was the duty of the state rather than of the national government, so, as a compulsory rule of the



These boys and girls are applying for employment certificates.

game, the NIRA was dropped. Many employers, however, are convinced that some such agreements would be good for all.

There are certain rules of the game that you should know before starting in your lifework. First, if you are to be employed, you should know the laws that have been passed in your state for your protection. The most prominent of these are: laws for the protection of those under sixteen years of age; laws for the protection of girls and women; laws for the protection of all workmen employed by others. Second, if you are going into a profession, or into business

on your own responsibility, you should know the laws to which you must conform. These may involve simply the payment of a license fee, or they may require passing certain examinations to show that you are prepared for the work that you would undertake. Again there are rules of the game not included in laws. The most important are those that you must agree to if you join an organization of those in the same sort of work.

QUESTIONS AND EXERCISES

1. Draw a rectangle $9'' \times 6''$. Over one $9''$ side write *Licenses Required*. Below this, with three vertical lines, divide your rectangle into four vertical columns. Head these as follows: 1. *Revenue as the main object*. 2. *Protection of citizens*. 3. *Protection of licensee*. 4. *Another object*. Now write in the proper columns the names of as many businesses and professions as you can.

LICENSES REQUIRED

REVENUE AS THE MAIN OBJECT	PROTECTION OF CITIZENS	PROTECTION OF LICENSEE	ANOTHER OBJECT

2. Make a list of as many good things as you can that trade unions have accomplished. Suppose that you plan to become a printer. Give as many reasons as you can for and against joining a union.

3. Plan two debates on the following topics:

- On the whole, unions are an advantage to the workman.
- From the point of view of the employer, unions are a good thing.

4. Suppose that your father hired a man to build a new porch on your home, and that the man slipped while working and broke his arm. Would your father be obliged to pay anything, and if so, under what law?

5. Define the following: *municipal, revenue, economy, sobriety, initiative, boycott, lien, collective bargaining.*

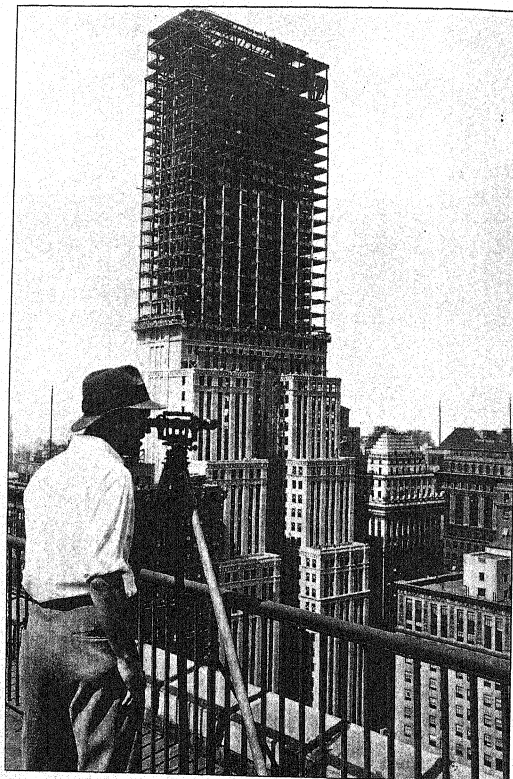
6. Interview some person who likes to hunt or fish. Ask him what laws he must obey. What is the purpose of these laws?

7. Write out carefully the most important laws for the motorist in your state and in your city. How would it affect the number of accidents if these laws were strictly obeyed?

BOOK TWO

THE OCCUPATIONS





THE SURVEYOR © G. A. Douglas from Gendreau, N. Y.

CHAPTER IV

EARTH OCCUPATIONS

The farm — best home of the family — main source of national wealth — foundation of civilized society — the natural providence.¹
— CHARLES W. ELIOT

Ten million men and women are at work in the United States bringing products from the soil, from the water, and from the mines. Your food, your clothing, your home, your comforts, your luxuries — for all of these you are dependent upon the earth occupations. The farmer not only raises your food but also produces cotton and wool for your clothing. The lumberman and quarryman helped to get materials for your homes. You would suffer from the cold without the work of the miner or the oil driller. The producers of flowers, diamonds, and pearls add to the beauty of your life. Do you wonder that farming, fishing, and mining are called fundamental occupations? Of these three by far the largest number of workers are engaged in agriculture.

HOW AGRICULTURE HAS DEVELOPED

In Europe. In some parts of southern Europe farming is still carried on in much the same way that it was several hundred years ago all over that continent. Here may be seen tiny fields, each worked by a different farmer, with hand implements, with only man power or possibly one cow or ox to help out. The houses are built close together in little villages, much as they were in the Middle Ages. In the morning and evening the farmers travel to and from their

¹ Eastern panel of central pavilion, Union Station, Washington, D. C.

tiny fields on bicycles or on foot. They will explain to you that should they buy modern machinery, there would not be room for it on their farms.

In America. In the United States changes were made very slowly. "As late as 1833, small grain was still sown broadcast and reaped either with a cradle or a sickle. Grain was



From Industrial Museum of Munich

Crude plows fashioned from forked trees were first drawn by men and later by oxen.

threshed with a flail or trodden out by horses and oxen. Hay was mown with a scythe and raked and pitched by hand."¹ Modern methods of farming are as different as are the methods of travel from those of a century ago.

The change. Changes have come in agriculture because of discoveries and inventions — discoveries of how and why things happen and inventions of machinery.

¹ From Carver, Thomas Nixon, *Principles of Rural Economics*, p. 138. Used by permission of Ginn and Company, publishers.

In olden times, many things that are clear to us today were mysterious to most of the people. Because they did not understand disasters and did not know how to overcome them, men felt that whatever happened was sent by some god and that they must bear it. Diseases were a curse from a god or a devil; no one knew how to prevent or cure them.



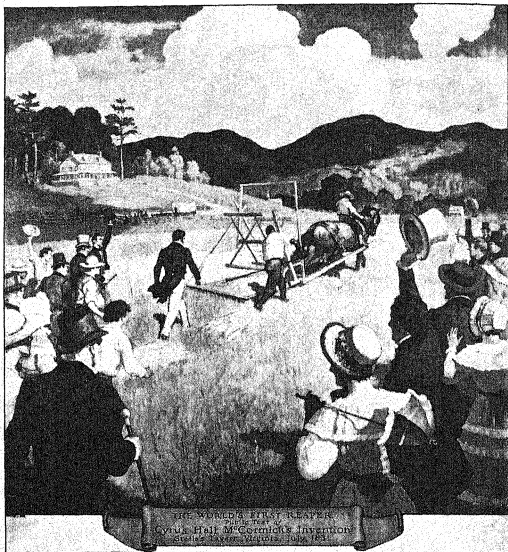
Courtesy of International Harvester Company

This farmer is cutting grain by hand with a scythe which is combined with a cradle to catch the grain and lay it in rows. With it a man could cut about two acres a day.

So the farmer, like the others, considered his good fortune a gift from God and his bad fortune perhaps a punishment from the same source. He had no weather reports and no knowledge of how to conquer pests. There were no chemists to teach him how to analyze and build up his soil. He did not know that there was always a reason for the things that

happened to his crops, and that seeming miracles could be wrought by the brains of man.

Invention. By 1866 much of the work that had been done for centuries by hand could be done by machinery. Thus



Reproduced from a painting by N. C. Wyeth. Courtesy of International Harvester Company

In July, 1831, a twenty-two-year-old inventor, Cyrus Hall McCormick, made the first public test of his reaper before the neighbors of the countryside. This horse-drawn machine could do the work of four men.

more could be accomplished with fewer men. Every school girl and boy knows about the cotton gin invented by Eli Whitney. An account written in 1802 says:

The separation of the seeds from the husks which inclose them, a tedious operation, which requires much manual labour, has been lately simplified by a machine, for which the inventor has obtained a patent from the American government. The legislature of South Carolina, have, for three years, paid him a sum of fifty thousand piasters, for permitting all the inhabitants of that state to construct them. This very simple machine, the price of which does not exceed sixty piasters, is worked by a horse or current of water, and cleanses three or four hundred pounds of cotton in a day, while, by the common process, a man cannot pick more than twenty-five or thirty pounds.¹

It is said that in the old way one man with three horses could plow two and three-tenths acres a day. In the new way one man with an engine drawing eight plows can plow sixteen acres, almost seven times as much. Is it any wonder that the methods of farming are different from those of a hundred years ago?

Transportation. While new machinery was being invented for farms and factories, something else was happening. The farmer had always had difficulty in getting in touch with the rest of the world. His products had to be carried in the farm wagon drawn by horses over poor roads which were often muddy and hardened into deep ruts. Then came better roads, canals, railroads, the refrigerator car, and finally the autotruck.

Results. You have learned how the Industrial Revolution brought hardship to the craftsmen of the Middle Ages. New problems follow new inventions and discoveries in every line. What is happening to the farmers now is another illustration of this. The new methods in agriculture have made it possible to produce many more bushels to the acre, but when so much more is produced, the result is that often the products must be sold at a much lower rate than normally,

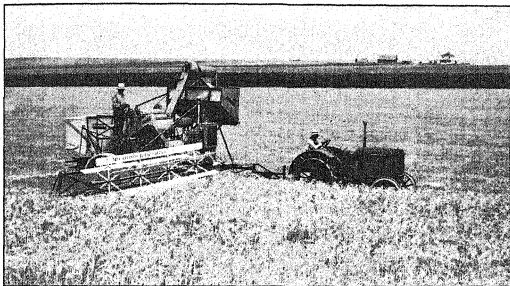
¹ Hart, Albert Bushnell, *American History Told by Contemporaries*, Vol. III, p. 71. New York: The Macmillan Company, 1901. Used by permission.

and that at times they cannot be sold at all. This is called overproduction. Many farmers fall behind because they have not the capital to buy the new machinery. In this sense capital means money that is used for the purpose of making more money. Farmers who can afford tractors, automobiles, and the improved farm machinery can of course make more money than those who cannot have these things. Because of inventions there has been less use for certain types of work connected with agriculture. *You* cannot think of a time when there were no automobiles, no tractors, nor autotrucks; but many a person can remember when every vehicle on the streets and on the farms was drawn by horses, or perhaps by mules or oxen. Farmers who bred these animals have had to change or modify their line of business.

Permanent settlers. Besides the Industrial Revolution, there is another reason for the changed life of the farmer. Our people who met early calamities by moving westward were in the main farmers. They were pioneers with new land to break. For their adventure they paid a big price in hardship and suffering. When their land could yield no more, they moved again. It was fortunate that, by the time there was no more land, scientific discoveries made it possible for them to raise more products on the old land, so that they have become permanent settlers instead of ever-advancing pioneers.

Co-operation. When you have something hard to do, you can often make it easier by working with someone else, that is, by co-operation. In this way several farmers in a district sometimes put their money together to buy a machine which they take turns in using. Few farmers could afford such a machine if they had to buy it alone. Many other farm activities, for example silo filling and threshing, are made easier by farmers working together. In selling their products, too, farmers often form co-operative associations.

They usually sign a contract agreeing to sell their products together for a number of years. The association pays for the construction of buildings to which products are to be sent, and makes arrangements with the railroads for shipping. It elects officers who actually sell the products, and others who keep all the accounts. After the cost of the



Courtesy of International Harvester Company

The "combine" reaps from forty to fifty acres of grain in a day. In 1935, more than half of the hard winter wheat in the United States was harvested by combines.

business of selling, including transportation and storing, has been deducted from the receipts, each farmer is paid his proportion of the profits. This co-operative marketing is one of the most progressive moves in agriculture.

QUESTIONS AND EXERCISES

1. Why did Charles W. Eliot call the farm the natural providence? Is all that he said of the farm still true?
2. Make a list of fifty things that you enjoy for which you are dependent upon the earth occupations.
3. Consult an English history and find out how farming was done around the manor houses in medieval times.

Mention three great differences between farmers of that time and those of the present time in America.

4. Answer the following questions in regard to your state. Ask the librarian for a book showing these statistics.

- (a) How many miles of railroad exclusive of switchtracks are there?
- (b) How many miles of interurban lines?
- (c) How many miles of improved highway?
- (d) How many miles of improved highway were constructed in the last year?
- (e) What is the source of the money to pay for these roads and to keep them in repair?
- (f) What do these improvements do for the farmer?

5. If possible, talk with some farmer in your community or with someone who was raised on a farm. Ask him to tell you of any changes in methods of farming or of transportation that have come within his memory.

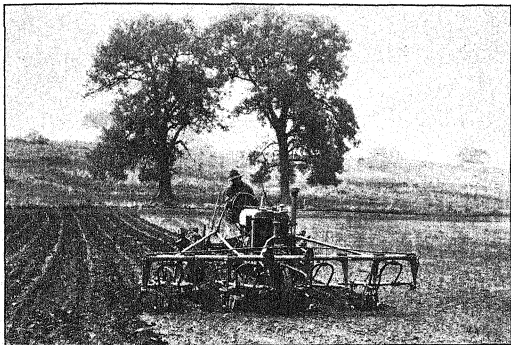
6. Mention five improvements that have brought trouble to some farmers and tell why.

7. What disadvantages can you think of that the farmer finds in using machinery instead of horses?

MAN'S PLACE IN FARMING

The farm hand. The farm laborer is one sort of workman. Like the factory worker, he toils day after day and he receives his wages, no more, no less, whether the profits are large or small. Usually he lives with the farmer's family and receives his room and board as part of his pay. One boy said he liked plowing because he could sit on the plow, and while he drove his horses he could think of what he pleased. That is one kind of plowing. On a larger farm today he might run a tractor engine which would, perhaps, pull several plows. The farm hand works entirely under the orders of the foreman, the manager, or the owner. He learns his job by doing things on the farm. In harrowing and in disking, the

workman drives machines, sometimes walking, sometimes sitting, sometimes standing. Much other farm work is done by machinery, but someone must tend the machine and in certain operations must haul grain and pitch it into the machine. Some of this work takes much strength; some of it is not hard. However, much of it must be done under the hot summer sun.



Courtesy of International Harvester Company

Either the owner or the farm hand may run this cultivator.

The manager. In 1930 there were in the United States 6,288,648 farms. Each one of these must have had a manager. This person, whether he be owner, renter, or employee, is the planner. He has to decide what crops to plant each year, how to fertilize the soil, and how to market his products. He must determine what new equipment is needed, such as fences, buildings, and machinery. He must assign the work to his helpers. The larger the farm, the more time must be spent in planning and directing others. On very large farms there are often foremen and superintendents over different divisions of the work. If you wish

to be a manager or superintendent, you should plan to take a four-year course in one of the State Agricultural Colleges. More and more business men in the cities are buying farms over which they are placing graduates of these colleges as managers. Farming is a business, and the farm manager must learn how to keep farm accounts, how to raise his crops at the least possible cost, and how to sell so that he may make a profit. He must, in short, study farm economics.

The county agent. Another important position for one who is trained in agriculture is that of the county agent. He is employed to carry out plans for a more extended education for the farmers, both for those who have not had the advantage of college training and for those who want to keep up with the improved methods. The county agent has an office and usually employs helpers.

A new kind of work is developing for the county agents. In many states they are conducting schools for farmers who already understand how to make the most out of their land. These new county-agent schools are not merely for the purpose of training farmers for their work. Their aim is to study questions of the day something like the questions that you discuss in your history and civics classes. The farmer has been so busy breaking new land, trying to make a living for himself and to provide the rest of us with the necessities of life, that he has not had time to learn how he fits into the life of the country. He, like men in the other occupations, has a value beyond that of the things that he produces. Just as your discussions should help you to see what your part is in your family and in school, so these county-agent schools are helping the farmer to learn how his way of life may benefit the whole country. Discussion of important topics helps one to grow in wisdom. It is necessary in a democracy.

Women in farming. A large number of women own and manage farms, and the proportionate number is likely to

increase. An even greater number own vegetable and flower gardens and do the actual work. Women have taken up claims in the West and have made good profits from their wheat fields. In 1930 the women in the United States who actually operated farms numbered over 260,000. In the same year there were over 640,000 women farm laborers. This figure includes girls over ten years of age.

Many women who are not mentioned in the census report have an important part in the success of a farm. These are the farmers' wives. Girls who marry farmers must plan to be the partners of their husbands. In the past the woman on the farm, as well as the man, has had to do too much hard work. This, however, grows somewhat lighter with the new inventions. The credit for the discovery of some of the improvements in the methods of work on the farm belongs to the farmer's wife. This is especially true in the case of poultry raising. Often she has had the responsibility of this part of the business without being given the equipment or the supplies to do it in the right way. The results are a proof of her ingenuity.

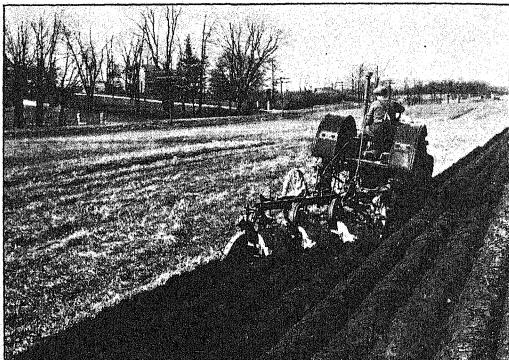
Where the farmer works. Farmers are fortunate in having their work out-of-doors. They may or may not be near a city. Those dairy farmers who sell milk to the cities are not far away. Near at hand are also poultry-raisers, truck-farmers, and florists. Their products would perish if they had to be shipped from a distance.

On the wide prairies of the Middle West, the dairy farmers are not so close to other people. Since they cannot send whole milk to the cities, they usually separate the cream from the milk and sell it to factories where butter and cheese are made for the market. Many of these factories or creameries are run on the co-operative plan.

The wheat farmer must have large fields, and when his crop is ripe he lives in an ocean of golden waves.

The stock-raiser lives in the open spaces, for he generally

needs large areas of land for pasture and for raising hay and other crops which are needed for growing and fattening animals. Animal production, however, is conducted under many different conditions. The Danish farmer may produce bacon that brings a fancy price on the London market from pigs that live their lives in one small pen, while the Chicago market receives roly-poly pigs that have roamed happily



Courtesy of International Harvester Company

The gangplow drawn by a tractor makes it possible to plow more ground in less time than formerly. What a difference between the deep furrows here and the surface-scratching done with the forked stick in early times!

over expansive alfalfa fields in Iowa. Cattle and sheep are raised on fenced farms. They are also produced by the thousands on the wide open, semi-arid lands of the Rocky Mountain region. Here it may take all of the feed grown on twenty-five acres to keep one cow. On these ranch lands the animals are watched over and controlled by herders. These men lead a lonely, but in some ways an adventurous, life. One colorful adventure comes when the animals are

rounded up for branding and for sorting out those intended for shipment to market.

If you should decide to become a farmer, the work you would do would depend on the part of the country in which you chose to live, although the present tendency is toward diversified farming. In the South you would find the great cotton plantations; in California and Florida, the sub-tropical fruit region; in various parts of the North, the hay-fields. If you should live in the corn belt, your experience might be like that of William Herbert Carruth, who wrote,

A haze on the far horizon,
The infinite, tender sky,
The ripe, rich tint of the cornfields,
And the wild geese sailing high;
And all over upland and lowland
The charm of the golden-rod,—
Some of us call it Autumn,
And others call it God.¹

QUESTIONS AND EXERCISES

1. What chance has a farm laborer to advance?
2. Is his work seasonal? Explain.
3. What are the arguments for and against women as farm laborers? as farm managers?
4. Report to the class any experience that you have had in gardening.
5. Find out all that you can about farm wages in your locality. Are the farms large enough for managers or foremen? If so, see if you can find out their salaries. How do renters pay for their use of the farms, and how much do both renters and owners make? You will not find these answers in books, but inquire in every other possible way.
6. If you know of any specialty in agriculture such as truck gardening, fruitgrowing, poultry raising, or bee or

¹ *Each in His Own Tongue.* Used by permission of Mrs. William Herbert Carruth.

mushroom culture, find out what chances a boy or girl might have to get a job in such work. What wages would he receive? What would be his hours of work? Is there a future for him?

7. Write a letter to the Agricultural Extension Service of your state (or to your county agent), asking for information in regard to the boys' and girls' 4-H clubs. The class should vote which letter is best, and this one should be sent to the station.

8. If you have ever lived in the country, make a list of rural occupations other than farming.

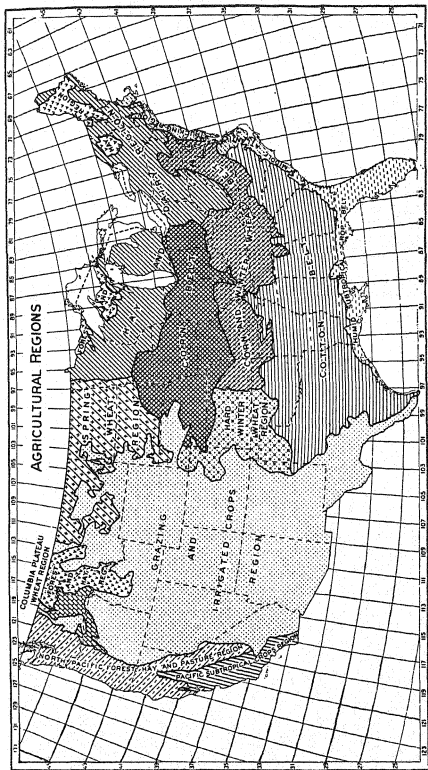
9. Report on the life and work of one of the following agriculturists: Frank J. Lowden; Luther Burbank; Henry Wallace; Thomas Jefferson.

10. What is meant by diversified farming?

GOVERNMENT AND FARMING

Because farming is done on an individual basis, farmers miss many of the advantages that big business organizations have gained. For this reason they need the help of the government in their problems.

Experiment stations. The farmer could not make scientific experiments as they are carried on in the research departments of the large industries. The Department of Agriculture at Washington hires experts who spend all their time trying to discover the things that will help in the agricultural occupations. Much of this work is done in experiment stations maintained by the federal government, in various places in the country. Co-operating with these, each state has an experiment station of its own. Here the men study the soil and the climate to see what improvements can be made in production in that locality. These experts have found ways of fighting pests, of improving soil for plant production, and of using the waste part of many products



Courtesy of United States Department of Agriculture, Bureau of Agricultural Economics

“If you should decide to become a farmer, the work you would do would depend on the part of the country in which you chose to live . . .”

that were formerly thrown away. For instance, the cotton seed was not considered of any value until it was discovered that from it could be produced meal and a substitute for olive oil. After the oil is pounded from the seed, the part left is called the cake, which is used for cattle feed and for fertilizer.

Farm legislation. The government also comes to the aid of the farmer in his financial difficulties. Under an Act passed by Congress in 1916, the Federal Land Banks were started. These were established that the farmers might borrow money for seed, new equipment, and other improvements at a comparatively low rate of interest and for a long period of time. It was hard for the farmer to borrow money from the regular banks because they will grant only short-time loans, and the farmer has to wait too long for his profits.

In the summer of 1929, in special session, Congress passed a bill called the Agricultural Marketing Act. One of the main purposes of this Act was to help the farmers through their co-operative associations to market their products, so that farming might not be at a disadvantage when compared with other businesses.

In 1933, the Agricultural Adjustment Act (AAA) was passed as an emergency measure. Because the farmers could not sell their products abroad as they did during the war, they found themselves with an oversupply. Whenever more goods are produced than can be used they become cheap. The farmers had to sell their products at a price so low that they could not buy what they needed from the manufacturing industries. The AAA was planned to prevent an oversupply of farm products and to adjust the prices of those products. People do not agree on the merits of the act but some leaders think that if it proves to be better for the country in general, some such plan should be made permanent.

QUESTIONS AND EXERCISES

1. How did the Agricultural Adjustment Act prevent an oversupply of farm products? How did it raise the price of farm products?

2. What child-labor laws have you in your state in regard to farming?

3. Give the exact location of Boulder Dam. What states are benefited by it?

4. *To the teacher:* Divide the class into as many groups as there are bureau chiefs in the Department of Agriculture. Assign a bureau to each group and have the pupils write to ascertain: 1. Where the experiment stations of this bureau are; 2. What preparation is recommended for the employees; 3. What salaries are paid. Send the best letter from each group.

5. How is it possible for the citrus fruitgrower to know that a heavy frost is coming? Find out what precautions he takes.

6. Send to the Farm Labor Board in Washington for a copy of the Marketing Act of 1929. Be ready to tell the class the main points for which it provides. A copy of the act may be found in some good recent almanac.

7. Find out just what the Smith-Lever Act is and how it helps in educating the farmer.

8. Find the same information for the Smith-Hughes Act.

9. Be ready to tell the class any suggestions for farmers you have heard over the radio.

Opportunities and compensations. Many older people in the cities dream of the time when they can retire and live on a small farm of their own, while at the same time young people in the country are eager to go to the city to seek their fortunes. Let us study the disadvantages that the latter wish to escape, and also try to discover the compensations that the former expect to find. There are many chances of

failure in the country where in spite of the greatest effort, if the weather is cold and there is little sun, the corn will not grow; and acres of wheat, rye, or barley may be destroyed in one night by a hailstorm. Sometimes grasshoppers or locusts, which come in such swarms that they look like black clouds, destroy whole fields that are not quite ready for harvest. Drought, flood, disease, and pests may make all the farmer's plans and work count for nothing. What are his compensations?

In the first place, not every year is a poor year, and even in the discouraging times, the farmer will usually be able to produce enough to feed his family. By using good judgment, by co-operating with his neighbors in the matter of harvesting and marketing and in matters of controlled production, and by using the various aids that the government offers, he will probably at least make a living. Then he has a variety of work which changes with the seasons of the year, and thus saves him from monotony.

Almost any kind of work has its satisfactions; that is, if you do the work well, you have a comfortable feeling as you look at the result. But farming can give particular pleasure because the results of one's efforts can be so easily seen and measured. When a man has studied the best methods and then has taken pains to do his work carefully, and when weather and other conditions have been favorable, he looks with satisfaction at his field of corn or wheat. If he uses his time, his work, and the latest scientific discoveries to the best advantage in breeding and raising stock, how must he feel as he views a fine herd?

Farming appeals to many because of the way of life that it offers. Active work and outdoor life help to make people healthy. There is something about the open spaces in the country and the freedom from the many temptations of life in cities that should help to make better men and women.

Appreciation. Though at one time artists painted only what they considered ideally beautiful, in later times they have chosen everyday subjects for their pictures. Some have painted fishermen and miners at work. A French painter, Millet, has given to the world pictures of peasants sowing or reaping in the field. People have learned to see the beauty in these sturdy folk on whom they depend for the necessities of life. We must appreciate the millions in our earth occupations in a still different way. It is not enough to look at the picture and say, "It is good." We must ask, "Are these people having a chance to live as happily as those in the other occupations?" We must be interested in knowing that they get their share of the rewards of work.

QUESTIONS AND EXERCISES

1. What is meant by losing a farm through foreclosure? Many farms in the country have been lost in that way. To whom do these farms go?

2. Look in the *Readers' Guide* in the library for an article describing the drought and dust storms of 1934, 1935, and 1936. Describe to the class the experience of a farm family in the drought area.

3. Write a paper called "A Day's Work." Tell what a farmer does from the time he rises until he retires at night. You must be sure to tell what month it is, and whether you are speaking of a farm laborer, a manager, or an owner.

4. Write a paper on "An Ideal Place for a Home." Be sure to give reasons for your opinions.

5. Write a theme comparing the "old" farm and the "new." Bring out as many points as you can, and tell in which kind you think a family would have been happier.

6. Write a paper called "Agriculture, an Appreciation." Discuss this subject briefly from the point of view of someone interested, but not intending to do the work himself.

Fishing. We have looked more carefully into agriculture than into the other earth occupations, because it includes ten times as many people as do fishing and mining taken together. If you do not live near the Pacific or Atlantic coast, the Great Lakes, the large gulfs, bays, or rivers, you may not realize how important the fishing industry is. From the products that the fishermen bring, we get not only a part of our food, but also such by-products as isinglass, and certain kinds of leather and soap. The ink used in printing your morning paper is made of fish oil and lamp-black. A strong quick-drying glue is fish glue which is used in the manufacture of shoes and slippers and in the preparation of paints.

Scientific methods have helped in this occupation also, so that the supply of fish is not used up. From hatcheries small fry are returned to the streams. Old oyster shells are planted in such a way that new oysters are developed.

Much has been written about the romantic and dangerous life of the fisherman. Both of these elements, in addition to intensely hard work, unquestionably enter into the fisherman's life. The danger lies chiefly in storms and fogs, especially in the winter. On the deep seas his flat-bottomed, high-sided dory is let down with several others from the schooner which remains at anchor as a home port while the fishermen scatter to make their hauls. There is not much pretense in men who live this kind of life. They cannot deceive nature.

The industrial revolution is having its effect here too, for steamers are taking the place of the slow sailing vessels.

Mining. Over 900,000 people in our country earn their living by bringing minerals from the earth. More than two thirds of these work in the coal mines. They do hard work in dark and dangerous places. As a result of inventions the

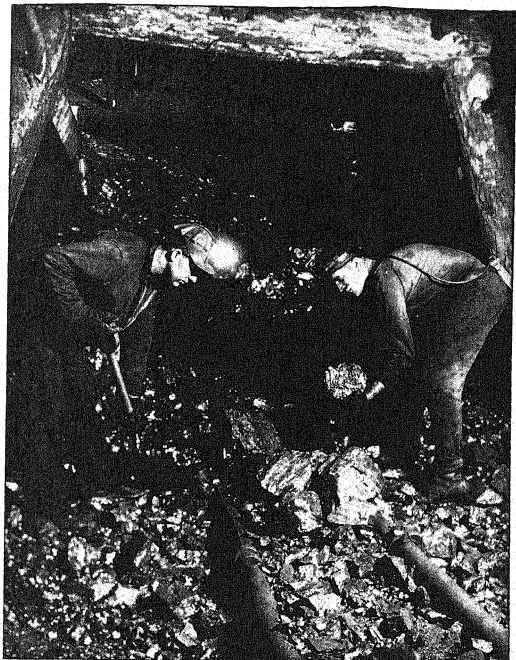


Photo by Philip D. Gendreau, N. Y.

These miners are loading freshly loosened coal onto a shaker chute.

dangers have been lessened, but there is still so little pleasure in the work itself that the compensations should be large. Most of the workers learn on the job. The managers and superintendents, however, are trained mining engineers. These have studied the science of minerals and the mechanics of mining machinery.

QUESTIONS AND EXERCISES

1. Choose for a topic the fisherman, oysterman, or the clammer. Find all the facts you can about his work. Be ready to give an oral report on "A Day's Work." Tell what he does, how he is equipped, and what his surroundings are. Try to imagine one concrete experience that comes to him during the day.

2. Do you think there would be much excitement in the life of a clammer?

3. If you became a mining engineer, in what part of the country would you probably live?

4. Would a mining engineer be likely to have opportunities to live in foreign lands?

5. Why do you think the operatives in a mine choose mining as their occupation?

6. At the close of the study of each occupation you should test it according to the six points given in Chapter II, *i.e.*, your interests and tastes, your abilities, the preparation required, the opportunities, the surroundings, and the money returns. Make a table of two columns. In the first, list the six questions given. In the second, answer each question briefly in regard to some branch of an earth occupation. Now write a paragraph telling whether or not you would fit into this work. Be very definite about the kind, and tell exactly why you might or might not like it.

7. Make a diagram like the one given on page 83 and fill in the information as suggested.

REPRESENTATIVES OF EARTH OCCUPATIONS	STATE OF THE UNION IN WHICH THESE WORKERS WOULD BE LIKELY TO PURSUE THEIR CALLING	TWO LARGE CITIES NEAR WHICH THIS ENTERPRISE MIGHT BE LOCATED
Fishermen		
Oystermen		
Managers of log camps		
Forest rangers . .		
Florists		
Nurserymen		
Raftsmen		
Wood choppers . .		
Laborers on turpen- tine farm		

CHAPTER V

COMMERCE: SELLING AND OFFICE OCCUPATIONS

Right is the proverb which says: It costs more to make a good merchant than to make a doctor of laws. Who is the person who can count all the things that can happen to a merchant — on the sea, on land, in times of peace and abundance and times of war and famine, in times of health and pestilence? In these crises he must know what to do, in the market places and in the fairs which are held now in one place and now in another. For this reason, it is right to say that the merchant is like a rooster, which of all the animals is the most alert and in winter and summer keeps his night vigils and never rests. — LUCA PACIOLO, Venice, 1494 ¹

THE BEGINNINGS OF COMMERCE

You are sometimes told that you are living in a great commercial age. In order to know what this means, you should understand the beginning from which commerce has grown. It did not always hold so important a place in the activities of the world as it does today. Until 1000 A.D. there was very little commerce in Western Europe. Most of the people lived in the small villages which had grown up around the castles and the monasteries, where they produced the things they needed. They did not have much trade because there was danger of robbery in transporting goods from one place to another and the governments were too weak to protect them. The result was that if crops were good there was an excess and waste, for there was no way to dispose of the extra supply. If crops were poor there was hunger and disease, for they could not go elsewhere to buy. Gradually men saw a way of improving this condition.

¹ Translation by J. B. Geijsbeck.

When they had more of one commodity than they needed they looked for neighbors who might have too much of another commodity. They would exchange the goods of which they had too much for those of which they had not enough, and at the same time, ways were found for protecting these goods in transportation. Thus commerce began.

The first exchange was in the form of barter ; for example, a beaver skin was given for a measure of wheat. But this way of trading was not easy. If a man found that he had more cows than necessary, but wanted a horse, it was not always easy to find another man who had more horses than necessary and wanted a cow. Even if he did find his man, it still was not easy to decide how many cows he should give for the horse. In order to settle his difficulties, three things were necessary : first, something by which to measure the value of the cows and horses ; second, something that the second man could give the first man for his cow even though he had no horse to spare at the time ; and third, a market where the extra cows and horses could be brought for sale.

Measure of value. How could men measure the value of a cow ? They must choose for the measurement some article that would do as well to tell the value of a bushel of wheat, building material, or a pair of shoes. People in different parts of the world chose different things for this purpose : certain Indian tribes chose woodpeckers' scalps ; a cow might be worth thirty scalps, a horse fifty scalps, and so on. In other places shells were used, or tobacco or bars of various kinds of metals or even cows themselves. These things were used as measures of value just as the yardstick is used as a measure of length.

Medium of exchange. Thus a man could tell what his cow was worth, but perhaps he did not wish the scalps or the shells or whatever was being used as a measure. If, however, shells were used to measure the value of cows,

horses, and everything else, then the man would be willing to give his cow for the right number of shells, knowing that when he had enough he could exchange them for the horse. Thus man found a medium of exchange.

One of the difficulties was that the people in different places decided upon different mediums of exchange so that a man might not be able to sell outside of his own town. Gradually the mediums changed from one commodity to another, then to metals in the form of bars, and finally to coins. As governments grew stronger each decided upon its own standard of money. Our Constitution says: "Congress shall have the power to coin money and to regulate the value thereof." Each country of the world has a different coinage, which makes a problem when it comes to buying or selling with a foreign country. This has been partly solved by a rate of exchange which from time to time fixes the value of the coins of one country in those of another, so that an English pound may be exchanged for a certain number of American dollars, or an American dollar for a certain number of Italian lire. Thus at first individuals agreed to barter and then communities adopted a medium of exchange and finally governments controlled the coinage for their citizens. Does it not seem possible that some day the nations of the world might adopt an international coinage?

Markets. Markets have also grown through the years. In the days of barter men needed a place where the things they did not need could be brought for sale. The custom arose of bringing products to some town where a market or fair was held. In old European towns they still have "market day." In the square in front of the cathedral one may see hundreds of booths arranged under large brightly colored umbrellas from which are being sold flowers, eggs, vegetables, neckties, underwear, fish, indeed almost everything one may need. In Leipzig, every spring and autumn is held a *messe* or large fair where merchants and manufac-

turers from every part of the country bring samples of their products. These Leipzig fairs have been in existence for almost a thousand years.

World markets. These markets served local and surrounding communities, but buying and selling is more important today because its field is world-wide, involving every nation with other nations. The manufacturing of many articles depends upon getting materials from foreign countries. In some cases more products are raised or made than can be used in the homeland, and the surplus must be shipped and sold outside. Some things are made better in one country than in any other and in order that all countries may be able to enjoy them, they must be sold. Sometimes this business of commerce influences men in deciding very important questions dealing with international relations. On account of this it is most desirable for nations to be friendly with one another, for rivalry in commerce may bring on serious trouble.

Change of standards. In the early days of buying and selling, men were not at all sure that they would be treated fairly when they came to do business in the market. They believed that either the buyer or seller would lose by the deal. Hence merchants were considered thieves and cheats. A century before the birth of Christ, the Romans had this notion. To them Mercury was the god of liars, thieves, and merchants. The word *merchant* comes from the word *Mercury*. In Roman law, the cheating of merchants was expected. The expression *caveat emptor* (let the buyer beware) has come down to us from that time, for if a purchaser was cheated it was his fault for being careless in his dealings with a professional cheat or merchant. Even though today buyers and sellers can be found who think the main object of business is to gain at any cost, yet in general buying and selling have reached a higher plane. In most places and in most lines of business "one price to all"

has become the rule. A self-respecting merchant desires to be "square," for he knows that if he is successful in selling the best of goods at a just price, the profits will take care of themselves.

QUESTIONS AND EXERCISES

1. On a page of your notebook paste an outline map of the two hemispheres, leaving a wide margin below. In this margin write the word *pencil*. From this word draw lines to the country or state from which the material for the various parts comes, and write the name of the material in that space on the map. For instance, the wood may be from cedar grown in the district from Maine to Mississippi, the graphite from Ceylon or from Sonora, Mexico, the oil of the paint from linseed of the Northwest, the rubber of the eraser from Sumatra of the East Indies or from Brazil, and the tin from the Scilly Isles. If you think the materials are different from those mentioned, or that there are others from other places, mention them.

2. Have you studied medieval history? Have you ever read *Ivanhoe* or any other story of medieval times in Europe? If so, describe an incident that will show the dangers of trade in those times.

3. Give as many reasons as you can for using coins as money rather than wampum, cows, tobacco, or woodpeckers' scalps. Think of such points as the following: A man might wish to carry ten dollars' worth of money with him; he might also wish to carry small change; he wishes to be sure that his money will be worth as much ten years from now as it is now; he wishes to be sure that someone at a distance will take his money for what he wishes to buy.

4. An old picture tells the tale of a man who had a white horse for sale. No one wanted a white steed so he painted his animal black, took him to market, and received a good price for him. Before the buyer reached home with his horse, a heavy rain came up. Of course the picture showed

a very humorous result. Do you think that the seller did a profitable business? Why, or why not?

5. Can you think of any reason why traders in olden times considered that they must cheat, and why many have a very different opinion today?

MAN'S PLACE IN COMMERCE

If you were asked to name the commercial studies in the public school or a business school, you would probably think first of stenography, typewriting, or bookkeeping, and you might say they lead to occupations quite different from selling. But the main use of the skill gained in these and many other subjects is to help in the great business of selling; therefore they are commercial studies. Since salesmanship is a necessary part of the world's work, the helping occupations are also necessary.

The salesman. The simplest kind of selling is that done behind a counter in a store. A beginner in a small store may start at once to sell; in a large store he is more likely to start as a stock boy. Behind the scenes there are large supplies of goods that must be marked properly and kept carefully. The salesman from time to time takes them out to show to customers. If they are not bought, the stock boy must replace them neatly. These beginners require very little training. Frequently they become salesmen.

The sales force. The work of the large traveling sales force requires more training and more ingenuity than that of selling behind the counter. The members of this class of salesmen go from town to town usually over a district assigned to them individually. As a rule they go from the wholesaler or the manufacturer to the retailer as they try to place their goods in a store or to renew orders from former customers. The company for which they work trains them thoroughly over a period of weeks or perhaps months.

If you would like to be a salesman, you should get a broad training which will give you confidence in meeting and in talking with people. Successful salesmen are needed in every business.

The buyer. The best salesmen may become buyers. Probably you have thought of a buyer who like yourself



Photo by Kaufmann & Fabry

This is a place for patience and self-control. The saleswoman will do well if she keeps calm during this rush for bargains.

goes into a store to make a purchase, but you must remember that all the articles for sale there had to be bought. In small stores the owner does the buying. In the large stores, however, this is done by the managers of departments, each specializing in one kind of merchandise.

There is an adventurous side to this business. Buyers are sent to all parts of the world. Silks, tea, coffee, rugs, furs, blankets, jewelry, art goods, and pictures are only a few of the articles for which they journey to far-off lands.

Buyers, managers, and owners hold the best places in the business of selling.

The canvasser. There are other kinds of selling besides that done in stores. For instance, a publishing company puts out a new set of books which is not to be sold in stores. Perhaps someone has visited your home trying to persuade



Courtesy of "Fashions of the Hour," the magazine published by Marshall Field and Company, Chicago

This picture shows a salesroom in which the saleswomen must have a special kind of knowledge. They must learn a great deal about furs and of the way they are prepared for the making of garments. In this department much time will probably be spent with each customer.

your parents to buy a new set of reference books for school children. Your father might not think of going to a store in search of such books, but when the young man calls in the evening and politely explains just how fine they are, and how they will help you in your school work, and also shows how the whole price does not need to be paid at once,

your father may become interested enough to buy a set. Many other articles are sold in this way. Indeed, the canvasser has introduced into our homes many comforts and conveniences that we might never have had the initiative to purchase in stores.

The agent. Another kind of salesman is the agent. He buys and sells for his customer, and his place of business is not in a store but in an office. He may sell insurance, stocks and bonds, real estate, or steamship and railroad tickets. His merchandise does not consist of objects that can be handled but of values that are represented on paper. The agent cannot sit quietly waiting for purchasers; he must try in every possible way to find his customers. If he succeeds in selling, he receives a certain percentage of the price. While little training is required for one to become an agent it is very necessary to have the natural ability to persuade people to buy.

The advertiser. In some way or other people must find out what is for sale. The business of letting them know is called advertising. This is done in newspapers and magazines, on posters and billboards, over the radio, and by circulars sent to houses. The printed advertisement is first written by the copy writer. He must tell in a few catchy words what would be likely to attract the attention of the public to the article for sale. For the radio a different type of advertisement is needed. It must catch the ear rather than the eye of the public. If you have talent and training in art, you may find a place in the advertising world as an illustrator. Your pictures may attract more than either the written word or the voice over the radio. Another way to advertise is to display goods for sale in an attractive way in show windows. This is called window trimming and is often an occupation by itself. One of the very interesting jobs in advertising is that of the investigator. He tours the community to find what people need and want.

He may visit stores to overhear the requests of customers. This work calls for initiative.



Courtesy of Orton B. Motter and Associates, Chicago

To advertise an article, it is necessary to combine sales ideas with artistic form. In this picture the advertising man is holding a broadside or self-mailing piece, and the artist has some layouts under his arm.

QUESTIONS AND EXERCISES

1. Look at the table that you made for Question 7, page 9, Chapter I. How many people do you find in agriculture, how many in manufacturing, how many in what may be called commercial occupations? Judging from the numbers, how do they rank in importance? Is it fair to rank them entirely in that way?

2. Did you ever try to sell anything? If you have, write an account, telling about the article sold, its cost, its

selling price, how many you sold, your expenses in selling, and your profit. Tell of any experiences, pleasant or unpleasant, that you had and whether on the whole you liked selling and why.

3. The next time you go into a store notice the salesmen. From your observation be ready to tell the class what you consider the requirements for a good salesman. Check on such points as appearance, manner, courtesy, interest, and knowledge.

4. One merchant found that in his store during a period of sixteen weeks forty salesmen made 1157 mistakes in addition and 115 mistakes in addresses on their sales slips. In what way did these mistakes cause a loss to the store?

5. Why is salesmanship at the door harder than over the counter?

6. Would it be better for the world if certain articles were never sold? Name any such articles that you can think of. Make a list of twenty articles for which we should really be grateful to commerce. After each one state how it has helped.

7. Cut out of a newspaper a good example of an illustrated advertisement. Try to obtain one that is not larger than $4'' \times 7''$. Also cut out a good example of a written but *not* illustrated advertisement not larger than $4'' \times 7''$. Mount these on a page of your notebook side by side. Now write a paragraph telling what there is in the picture and what in the words that attracted your attention. Is there anything that makes you want to buy the article advertised? Now try composing two advertisements of your own; one in words and one with a picture. Do you think you could learn to make striking illustrations? Is it easy for you to think of catchy words?

8. Listen to a radio advertisement. Did it make you want to buy the article advertised? If so, why? If not, why?

9. Look around your home to see if you can list ten articles from foreign countries.

Office workers. The business of commerce has grown to such an extent that it includes many occupations besides buying and selling. Records must be kept, letters must be written, and many other things must be done to make the business run smoothly. Almost every store, factory, railroad, bank, and indeed every kind of business has its office force. The person who is trained to work in the office of a commercial business may do much the same sort of work in a doctor's or lawyer's office; he may work in a school or other institution, or he may be employed by the government. We are to see what jobs are possible for people who thus help.

The messenger. Probably the first office position that an untrained boy or girl would have is that of messenger. Possibly all his work will be indoors. A paper, a parcel, a message must be carried from one part of the building to another. If he is quick, courteous, and responsible, he will be in line for promotion when there is an opening. If his work is outside of the building, he has even more opportunity. The more people in business he meets, the more chance he will have of getting a better place.

The filing clerk. One cannot say there is a regular system of promotion in an office, because the various jobs require such different training that it would be quite impossible to go from one to the other. So we shall discuss each one without regard to order. The larger the office, the more records are kept. Usually a copy is kept of every important letter that is written, and all important letters that are received are filed for future reference. Besides letters, many sorts of records are kept on cards of various sizes. Some firms keep personal data about their employees; most of them have a card for every customer with a charge account. Notes about such items as sales suggestions and business supplies are recorded and all must be filed. Filing is a branch of business that requires training if records are to be found instantly when wanted. Schools have courses

in filing in order to help young people to get employment in this line of work. Promotion depends on accuracy in reading and speed in filing. Careless or untrained filing clerks may be responsible for the loss of thousands of dollars to a firm.

The recording clerk. In order that records may be filed they must first be made. The recording clerk prepares these records. He may be entering reports on record sheets; he may be adding figures; he may be checking to find whether there are any errors; he may be copying records on the typewriter. The chief requirements are speed and accuracy.

The stenographer. Almost every business office in the country has at least one stenographer. Business men used to write their own letters with pen and ink and even make copies for their files, but the amount of work they could accomplish in a day was only a small fraction of that now done by an executive with the help of a stenographer. Stenography means a short way of writing and is often called shorthand. The stenographer must be able to write as quickly as his employer dictates. Later he must read his shorthand notes and write the letters accurately on the typewriter. This is called transcribing. Stenography cannot be learned in a business office. It must be mastered before one can possibly get a position. The standard for a good stenographer has been put at 125 words a minute.

The court stenographer. An expert stenographer who can bring his speed up to 150 to 200 words a minute may become a court stenographer. He must attend trials and record every point that is made by the lawyers on both sides, every answer given by a witness, and every order given by the judge. Court reports must be prepared very quickly so that the stenographer often has to work late into the night transcribing his notes. Most court stenographers are men. They are usually highly paid.

The private secretary. A good stenographer who has a pleasing personality and can take responsibility might become a private secretary. His duty is to relieve his employer as much as possible in regard to his mail, his telephone messages, and his callers. He must be able to keep secrets, for no business man wishes his affairs to be talked of outside the office. Many men are ambitious to get a position of this sort in a big organization, for it is an excellent way to learn the business and the ways of an executive.

The bookkeeper. The keeping of accounts of money paid out and paid in is a large part of business today. A number of people are employed for this purpose. They are called bookkeepers. If you take pride in making a neat-looking page, and like to work all day with figures, making no mistakes in adding or subtracting, perhaps you should register in a course in bookkeeping. A bookkeeper has little to do with other people. You should study yourself to find out whether you would rather meet people of all sorts of dispositions as the stenographer or the salesman does or whether you would enjoy working alone, your mind concentrated on one thing for hours at a time. There are very interesting positions to which one may advance after he has mastered the principles of ordinary bookkeeping as a foundation. You may decide to continue your preparation so that you may become some kind of accountant.

The accountant. The bookkeeper records, but the accountant must do more. He learns how and where to enter a great many items, to add and subtract accurately when necessary, and to get his balance correctly so that his employer can determine fairly well what has happened in his business. The accountant not only knows how to get correct figures, but he is also able to tell just what these figures mean. If he is a cost-accountant, he must figure out how much merchandise and at what price the merchant will

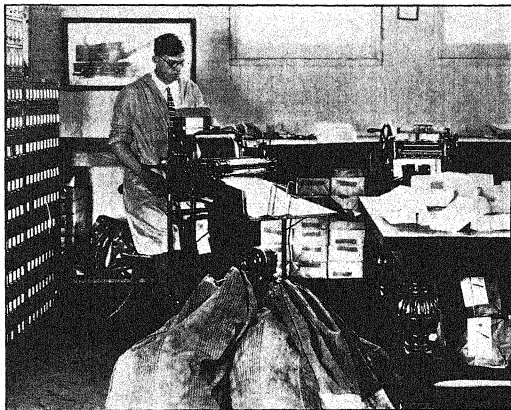
have to sell in order to make his income greater than his expenses. Some men are their own cost-accountants, but as it is usually difficult to figure out how much must be the price of each article in the store, it takes an accountant with years of training to do it well. A man may be an accountant for a large business and work on a salary, or he may be hired by one business after another to look over the books and to show the cost of different parts of the business.

There are other kinds of work that an accountant may do. He may help a business man to make out his income-tax statement. He may study a man's business in order to advise whether or not he should take a partner. He may be called upon to check up on the bookkeeping department of some business. There is a good field for the efficient accountant. He often works for an accounting firm. To do the most important work, he should be a certified public accountant, but in order to write the letters C.P.A. after his name, he must pass a very difficult state examination.

The collector. In many businesses, merchants allow charge accounts to their customers, and these accounts are supposed to be paid at regular intervals. When people are not able to pay their bills or carelessly neglect them, the firm sends a collector. He must be a person of tact and ingenuity. He cannot do as did the man in the Bible story, go to his debtor and say, "Pay me that thou owest!" While he must be firm enough to insist upon the customer's paying his debt, he must at the same time keep his good will.

The credit man. The credit man's task is to decide which customers are to be allowed a charge account by the firm. The source of income and the reputation of the individual for meeting his obligations must be investigated. Sometimes the credit man must close a customer's account because he does not pay his bills. You can see that he must be a strong character; he has to decide hard questions, and he must sometimes make enemies for himself or for the firm.

Office-machine operators. We are living in what is called the "machine age." Men in commerce as well as those in manufacturing have learned that business today requires great speed if it is to be done at a profit. Human workers, who grow tired, cannot keep pace with the demand for

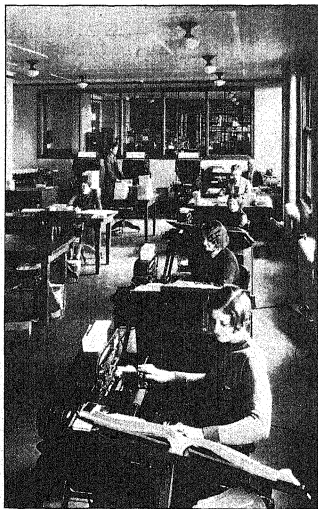


Courtesy of The American Multigraph Sales Company

This young man is doing another kind of modern office work. By one operation with this complicated machine, he can not only write a letter, but also date it, fill in name and address, and sign the letter with pen and ink. At the same time this machine addresses the envelope. Six hundred or a thousand may be done in an hour. How much could you accomplish with the typewriter in that time?

accuracy and speed. For this reason the use of office machinery is increasing. The oldest and most commonly used machine is the typewriter, but many other office machines have come into use since the invention of the typewriter. The business man may now dictate to a machine instead of to his stenographer. The bookkeeper

may rely on another machine for accurate results. Because the use of machinery is so important in business offices



These girls must be accurate and quick and have had training in handling this office machinery.

today, the number of opportunities for trained operators is likely to increase.

Managers. In all business someone has to plan the work and assign it to others to do. The salesmen, the office force, and the advertising and other departments, all need managers. The manager must be a good organizer. He must be able to select the people and assign the right work to each. In the commercial occupations, a person of exceptional ability is likely to be promoted — a sales-

man to buyer or sales manager, an office clerk to head of a section and perhaps to office manager. In your grandfather's time many boys left school early and began in the most humble positions in business. Some of these boys finally worked up to the position of manager, and some even became owners. Today, however, if a boy hopes to succeed he must have more schooling, although he must still be willing to start at the bottom. A recent graduate of one

of our largest universities began his business career selling neckties in the basement of a department store. He showed such enthusiasm for neckties that he was soon made assistant buyer. When a company from another city was putting on an exhibition in the store, he gave such valuable assistance that he was offered a good position with that firm.

IMPORTANCE OF COMMERCE

Perhaps you have not realized how important commerce is. Agriculture and manufacturing are fundamental occupations. It is easy to see how important they are, but they are dependent on commerce. Almost everything has to be sold: the very ground we live on, the clothes we wear, the food we eat, the books we read, the tools we use, the things we play with, the furniture we have in our homes, the cars we ride in, and the gifts we give our friends. Some are sold in stores, some from house to house, some in offices, and some through the mail. When things are not sold, business stops and we have hard times. If you choose commerce for your work, you will have part in one of the most important occupations in the world today.

QUESTIONS AND EXERCISES

1. What office machine saves the time of the typist in preparing the mail? What machine is used in adding long columns of figures? How may a business man dictate a letter when his stenographer is out for lunch?
2. Name ten other kinds of office machinery.
3. Is it possible for an untrained boy or girl to get work in an office?
4. Imagine yourself a stenographer or a bookkeeper in the office of a large department store. Write a paragraph telling how your work helps in the office, how the office helps the store, and how the store helps the community.

5. Turn a page of your notebook with the short end toward you. Make a diagram after the plan of the following, with the dimensions 9" \times 7".

NAME OF POSITION	NUMBER OF OPENINGS	REQUIREMENTS	PAY—OTHER INDUCEMENTS
Messenger			
Telephone operator . .			
General office worker .			
Filing clerk			
Typist			
Operator of other office machinery			
Stenographer			
Bookkeeper			
Accountant			
Advertiser			
Salesman			

Now take a daily newspaper. From the pages of advertisements for help wanted, fill in the blanks of this diagram. Under requirements put such things as age, education, and experience. Under other inducements put anything that makes the work look attractive. When you have filled in the diagram, write a paragraph on "The Opportunities in Our Community as They May Be Learned from Want Advertisements." In which kind of commercial work is there the greatest opportunity? Do you find any additional information?

6. On a page of your notebook lay out an 8" \times 5" oblong like the one below. Turn to the *Number and Sex of*

Occupied Persons report of the Census Bureau and fill in the blanks.

	TOTAL IN 1920	TOTAL IN 1930	INCREASE	PER CENT OF INCREASE
Commercial travelers . .				
Bookkeepers, etc.				
Agents, canvassers . .				
Collectors, etc. .				
Telephone operators . .				
Stenographers .				

Which occupations are growing in importance, which are decreasing?

CHAPTER VI

COMMERCE: TRANSPORTATION AND COMMUNICATION

Machines for navigating are possible without rowers, so that great ships suited to river or ocean, guided by one man, may be borne with greater speed than if they were full of men. Likewise cars may be made—so that without a draught animal they may be moved with inestimable speed . . . and flying machines are possible so that a man may sit in the middle turning some device by which artificial wings may beat the air in the manner of a flying bird. — ROGER BACON, 1214–1294

Meaning. Merchandise must be delivered to the buyer. In every civilization we find some provisions for delivery of purchases. The Chinese coolie carries a heavy load on his back or across his shoulders, the East Indian transports burdens on his head, and the Eskimo often hitches himself up with his dogs. We send our products on trains and motor trucks from one end of the country to the other. This process we call *transportation*. It is often necessary to make arrangements for buying, selling, and delivery of goods. The business which meets this need is called *communication*. Transportation and communication help commerce, but they are big commercial occupations in themselves, which in turn are helped by the other forms of commerce.

Importance. Without transportation, there could be no factories to make our shoes, our furniture, our clothing, our automobiles, our machinery, or the millwork for our buildings, because the manufacturers could not possibly get the raw material for these products. Even if the materials were at hand, it would not help the rest of the world, for only the people in the immediate neighborhood of the factory could get them and use them. Without

transportation the hundreds of acres of farm lands over the United States could never have been developed. Farm machinery could not have been brought to them nor could the wheat, corn, hogs, and cattle produced have been sent to market. Doctors and first aid would be very slow in reaching us in case of sickness or accident. We could not get fuel to heat our houses in winter. There is no end to the inconveniences and discomfort we should feel were it not for transportation.

To the various forms of transportation, also, we are indebted for our mail service, our most important means of communication. Without the mails, telephone, telegraph, and radio, we should lack protection, comfort, and convenience, almost as much as without transportation.

TRANSPORTATION

Development. From long ago transportation has grown, and always toward greater speed. Once it took three or four months to send a letter by stage from New York to San Francisco. Now one can be sent by air mail in twenty hours. A man can carry a limited load at a certain rate; an ox, or a camel, or a horse can carry a larger load at a faster rate. Men, oxen, camels, and horses all had their day. Later came sledges, and then with the invention of the wheel came vehicles drawn by oxen or horses. Now we rely upon steam, electricity, gas, and oil, and trust in flyers on the rails, on highways, and in the air. Once a barbarian astride a log paddled his way across a stream; later on, a few light logs lashed together kept him out of the water; a hollowed-out log was some improvement, and then came oars, sails, and steam; and finally the great ships that take trainloads of freight and a cityful of people from country to country. Several thousand years were needed to bring transportation to its present state. It is commerce that has brought these changes about.

In 1827, twenty-five merchants and bankers met to plan the first real railroad in America, the Baltimore and Ohio. They had to try many experiments before it became a steam road with iron rails. Their cars were moved at first by horses; then cables were tried for making the grades. They even used sails, thinking that the wind would be a good source of power. One experiment was that of a treadmill car with a horse on deck, but it is said that a horse in his rounds spied a cow on the track, became frightened, and tried to run away. Finally, in 1829, Peter Cooper's famous steam engine was tried. The stage drivers were jealous, and one even tried running a race when Cooper himself was driving his engine. The stage drawn by horses won this time, but you know the final result.¹

Gradually other roads were built — the Erie, the New York Central, southern roads, western roads. A few incidents will show us some steps in their growth. In 1831, the trains on the New York Central were making about fifteen miles an hour. One day in 1835 a man was traveling from Boston to Providence in a crowded train. At one stop twelve girls boarded the car. The men were asked to climb on the roof for the rest of the journey but decided that they would rather endure still greater crowding than to do so. The man who tells the story adds, "All of this discomfort was to do in two days what could be comfortably done in eight or ten." Now the same journey can be taken comfortably by train in less than one hour. In 1854 the Chicago and Northwestern Railroad used the first telegraph for dispatching trains; in 1864 they ran the first postal car.

The western railroads had romantic beginnings. A route used by Spanish explorers in the sixteenth century became the Santa Fe Trail over which journeyed traders in the nineteenth. Over the trail, traveling was at first accomplished with the pack mule. Then after 1824 came

¹ Hart, *American History Told by Contemporaries*, Vol. III, p. 563.

caravans of big wagons. The traders had trouble with the buffaloes, Indians, and swollen streams. After the middle of the last century, a railroad was thought of along this same route. It was 1873¹ before the Santa Fe Railroad was completed as far west as the city of Santa Fe, and journeys that had been measured in weeks were measured in hours. In the eighteen sixties the Pacific lines were extended westward from Omaha and eastward from Sacramento, thus making the first transcontinental railway. The growth of the railway was romantic, but it came with untold difficulties.

Not only is there swifter service, but there is also more comfortable service. The earliest cars looked much like stagecoaches. There are many stories of travelers lurching, sliding, and bouncing. If the train was stalled on the prairie, the passengers would have to get out and help. Sometimes they had to cut wood and to walk a mile or more in order to get water for the engine. With the new inven-

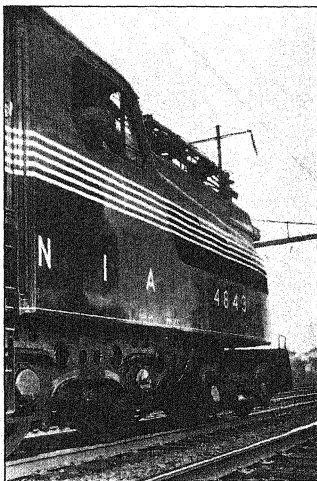


Photo by Philip D. Gendreau, N. Y.

One of the new streamlined electric locomotives used in high-speed passenger traffic.

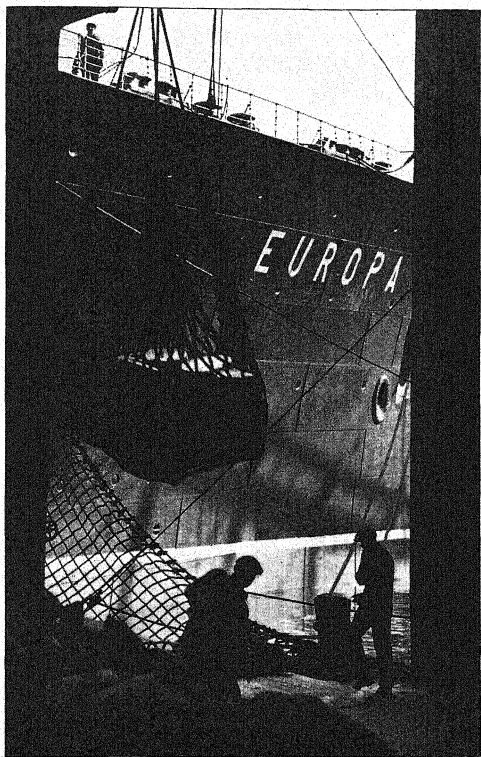
¹ Starr, John W., Jr., *One Hundred Years of American Railroadng*, pp. 238-248.

tions for engines, for safety appliances, and for the signal service, there came also the making of the Pullman car, which on the best trains contains every comfort imaginable. Many of them are air-conditioned. The coal-burning steam engine, the electric engine, and the Diesel engine which may be fed with crude oil are constantly being improved. Men of experience and judgment prophesy that the railroad business will increase more and more for the next fifty years; consequently it is a business in which there are likely to be many opportunities.

By water. The growth has not been different on the water. We are told, for instance, of a certain coal mine in Pennsylvania, from which the coal was sent by means of boats on the Lehigh River. These were described as huge boxes, guided by oars. They went down the stream, but never could come back against the current, so at the end of the journey they were destroyed. From such poor beginnings, water transportation has developed, until in 1935 an ocean liner was built that made the trip from Havre to New York in less than four days, twelve hours.

By highway. After the stagecoach had given way to the railroad, the improvement of public highways did not seem so necessary. Men went from place to place with horse and carriage, and took their goods with horse or ox and wagon. Roads were kept up fairly well. Often the farmers spent part of their time trying to keep those in their neighborhood in order. But at times it was hard to get goods to market or to drive to another town oneself, for the roads might be muddy and very bad for traveling, or a washout might demolish them altogether. Then came the automobile. In 1929, 5,261,715¹ automobiles were manufactured in the United States. Rich and poor alike enjoy the comfort, convenience, and pleasure that come from this new

¹ This number decreased until by 1932 only 1,431,494 cars and trucks were made. Now the number is again increasing.



© G. A. Douglas from Gendreau, N. Y.

Here we see men loading cargo on a huge ocean liner.

form of transportation; commerce is helped by every kind of delivery wagon, while the transportation of passengers and freight by motor bus or truck has become an immense business and has made hundreds of new occupations.

By air. Even ancient people knew of certain wheeled vehicles, such as the chariot, and they knew a good deal about water travel, but about travel in the air they had



Courtesy of International Harvester Company

"... cars may be made so that without a draught animal they may be moved," but perhaps Roger Bacon did not realize the miles of highways that would be made necessary.

only myths, such as the story of Icarus. Leonardo da Vinci (1452-1519) believed that such a thing would be possible, and actually planned a flying machine. A model of his machine is on exhibition in a museum in Munich, Germany. In later centuries, there were balloons in which men flew over the walls of cities, but it was only in the first part of the present century that aviation really began. From balloons or lighter-than-air machines, the Germans developed

Giles:

OCCUPATIONAL CIVICS

OCCUPATIONAL CIVICS

by I. K. Giles

List Price \$1.40

(Subject to the usual school discount)

"Blessed is he who has found his work, let him ask no other blessedness. He has a work, a life-purpose; he has found it and will follow it."
—*Carlyle*

These words, which serve as an introduction to the first chapter of the book, provide the key to the entire text. The purpose of the author is to help the young American to find his proper place in our busy world and to build in that place a successful and happy life.

IMPORTANT FEATURES

1. *Organization of material*

The text is organized in four parts, or "Books," as follows:

Book One (Chaps. I-III, pp. 3-60) dealing with the general facts about the choice of a vocation and the laws governing workers.

Book Two (Chaps. IV-XIV, pp. 61-246) dealing with the various occupations and the opportunities in each.

Book Three (Chaps. XV-XVIII, pp. 249-303) dealing with government, its relation to the worker, and the opportunities for government work.

Book Four (Chaps. XIX-XXII, pp. 307-375) dealing with: (1) the use of leisure; (2) training for a life-work; and (3) personal standards leading to success.

2. Correlation with other subjects in the curriculum

- (1) *With history.* The correlation with history is secured in two ways:
 - (a) By paragraphs on the historical background of vocations, professions, etc. See, for example, pp. 11-19, 39-44, 46-48, 61-66, 84-88, 105-11, 126-27, 131-32, 140-43, 252-56.
 - (b) By activities involving historical study and investigation. See, for example, pp. 4, 67, 88, 130, 192, 198, 237, 257, 258, 302, 331.
- (2) *With English.* The correlation with English is secured through the activities at the ends of chapters (or main sections) and consists of the following:
 - (a) Preparing and giving talks (see pp. 17, 38, 212, 326)
 - (b) Writing letters (see pp. 20, 45, 74, 77, 196, 301, 302)
 - (c) Conducting interviews (see pp. 58, 125, 163, 188, 212, 220, 246, 343)
 - (d) Making reports (see pp. 77, 192, 196, 212, 219, 290)
 - (e) Writing a paper (see pp. 79, 93, 102, 103, 114, 130 — thirteen papers are called for in the book)
 - (f) Telling a story (see pp. 113, 139, 158, 302, 371, 372)
 - (g) Writing explanations (see pp. 138, 139, 173, 327, 339, 372)
 - (h) Writing description (see pp. 145, 157, 237)
 - (i) Dictionary work (see pp. 138, 192, 212 — nearly every page of activities calls for dictionary work)

3. Activities and test questions on the text

At the end of each chapter and frequently within the chapter, following the discussion of a main topic, there are questions and activities dealing with the subject matter of

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3. *Activities and test questions on the text*

At the end of each chapter and frequently within the chapter, following the discussion of a main topic, there are questions and activities dealing with the subject matter of

the chapter. There are 67 pages of activities and questions. The activities include the following:

Drawing diagrams	Collecting, cutting out, and
Visits to farms and factories	pasting news stories
Cutting out and arranging	Sketching
pictures	Listing occupations
Finding types of architecture	Making a time budget
Planning hiker's equipment	Dramatizations
Making charts and tables	Organizing equity court
Outline map work	

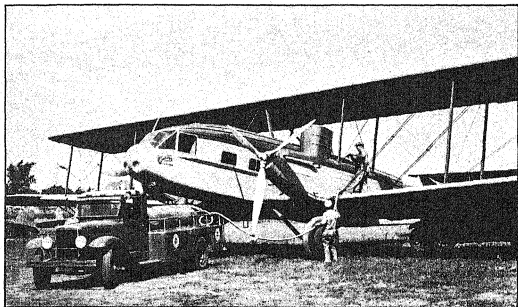
4. Illustrations

There are 108 illustrations in the book. Each illustration is directly integrated with the text and is shown on or opposite the page of subject matter with which it is related.

5. Motivation

Each of the above features, in addition to its function in presenting the factual material of the course, serves also as excellent motivation. The style is simple and the vocabulary is well within the grasp of the average junior high school pupil. Words that are difficult for such a pupil are made a subject of special study in the exercises. Interesting stories, usually based upon fact though sometimes purely imaginative, are used illustratively in the discussion. The historical notes and the large number and variety of activities (based upon experiences within the general environment of the pupil) add greatly to the interest of the course.

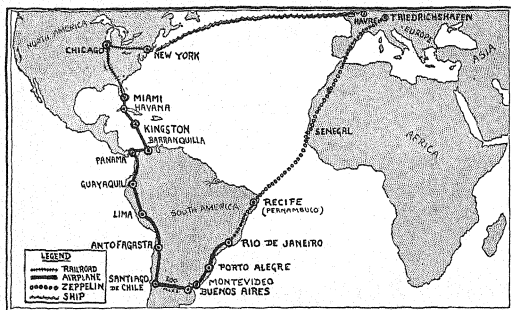
the Zeppelin. The gas engine had been invented, and it was found that it could be used in the air as well as on the earth. Meanwhile experiments were being made with heavier-than-air machines, and in 1903, Orville and Wilbur Wright actually flew in airplanes. Improvements were gradually made, and these planes have been used more and more until today there are many air passenger and mail lines.



Courtesy of the International Harvester Company

One form of transportation is dependent upon another. This truck has brought gas to an airplane on a flying field.

Travelers often use several of these methods of transportation in one trip. In the summer of 1935 John T. McCutcheon, the cartoonist, traveled from Chicago to South America, next across the ocean to Africa, then north to Europe, and back to the United States. You will see by the map (page 112) that he used four methods of transportation. Undoubtedly he also used the automobile. In one lap of his journey in South America, he rode in a robot-piloted plane. From Rio de Janeiro he talked to the people of the United States. How little of this expedition would have been possible even five years before!



Courtesy of "The Chicago Tribune" and of John T. McCutcheon

This is the route taken by the cartoonist John T. McCutcheon. The legend shows where he used the different kinds of transportation.

QUESTIONS AND EXERCISES

1. From a newspaper or the advertising section of a magazine cut out pictures showing four different kinds of transportation. Mount these on a page of your notebook so that one long side of the page is at the top. Leave a space below to draw an oblong $9'' \times 1\frac{1}{2}''$. Name the right $1\frac{1}{2}''$ line, 1925. To the left on the oblong lay off the quarter-century lines. From each one of the pictures mounted above, draw a line to the point on the time map ($9'' \times 1\frac{1}{2}''$ oblong) where this mode of travel was first used. On the time map place the date in figures of good size. (Use encyclopedia to obtain dates.)

2. On a page of your notebook draw a $7'' \times 9''$ diagram like the one below. Plan trips from Chicago to New York City; one today, and one, one hundred years ago. On the trip of a century ago, go by two different routes. Route 2 might be via the Chicago River, the Desplaines, the Illinois, Mississippi, and Ohio to Pittsburgh, then overland to Philadelphia, up the Delaware, and again overland. In

this there would be several stages: 1. Chicago River; 2. Portage to Desplaines; 3. Desplaines; etc. Would you use more than one kind of transportation in any of these routes? If so, what kinds?

	ROUTE I			ROUTE II		
	Stages of Route	Kind of Workers Who Aided	Time for Trip	Stages of Route	Kind of Workers Who Aided	Time for Trip
In 1836						
In 1936						

3. On a page of your notebook, draw a diagram like the one below. Turn to the *Number and Sex of Occupied Persons* report of the Census Bureau, under *Transportation*. Fill in one oblong with data that have to do with motor transportation, one with figures that are concerned with horse-drawn vehicles, and one about aviation.

OCCUPATION	TOTAL IN 1910	TOTAL IN 1930	INCREASE OR DECREASE	PERCENTAGE OF INCREASE OR DECREASE

4. Choose some form of transportation, old or new, for example, the Eskimo dog sledge, the pony express, canal boats, long-distance motor trucks, airplane service, or twentieth-century fliers on the railroad. For this one occupation, tell how the work of the driver, the rider, the engineman, or whatever he is called, helps or helped other

people in the country. Mention a number of people whose lives have been made more comfortable or happier because of this person.

5. Think of stories you have read about American pioneers in any part of the country. Tell which of the hardships that they suffered came from lack of transportation and of communication.

6. Write a paragraph about liquor drinking and transportation. Comment on the expression, "Alcohol and automobiles do not mix."

7. A railroad official remarked: "Next after the Christian religion and the public schools, the railroad has been the largest single contributing factor to the welfare and happiness of the people." First, be sure that you understand this quotation, look up any words that you do not understand. Then decide whether you think it is really true or not. Now write a paragraph telling why you think as you do.

8. Some people who rode on the earliest trains in this country, when they were bounced up so that their beaver hats hit the top of the car and were crushed, said that the idea of railroads came from "crack-brained visionaries." What did they mean? What would they say if they could see our transcontinental fliers, or our passenger airplanes? What do many say now of future passenger planes across the Atlantic? Do you agree with them?

9. Find the names of three Spanish explorers who in the sixteenth century blazed the route which is now the Santa Fe Trail.

10. Explain the meaning of "robot-piloted plane."

MAN'S PLACE IN TRANSPORTATION

Railroading. There are over two thousand¹ different kinds of positions connected with railroads. In these occupations, the brotherhoods, which have a great deal to

¹ Rules for Reporting Information on Railroad Employees to the Interstate Commerce Commission.

say about the rules of the game for railroad employees, have brought about a system of advancement along regular lines. This means that a man must work in certain positions before he may have others, and that when there is a vacancy, the law of seniority must hold. There are not many kinds of business in which you can know so well beforehand how advancement is likely to come as you can in railroading. The workmen are divided into classes, and for each class a roster or list is kept showing the steps in rising to a better position. The higher positions in railroading are those of the divisional superintendent, the engineer maintenance-of-way, the general superintendent of transportation, the superintendent of telegraph and signal, and the general superintendent of motive power. The rosters for some of the different classes of workmen are shown below together with the executive for each group.

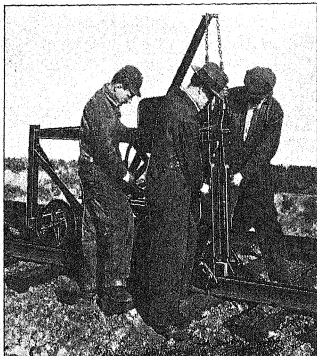
ON THE ROAD	
<i>Trainmaster</i>	
Passenger engineer or motorman	Passenger conductor
Freight engineer or motorman	Freight conductor
Fireman	Brakeman
IN THE YARDS	IN THE SHOPS
<i>Yardmaster</i>	<i>Master mechanic</i>
Yard engineer	Boilermakers
Yard fireman	Machinist
Outside hostler	Car-repairers
	Inspectors

When the position of any one of these men is left open, the man on that roster who has been longest with the railroad, if he has fulfilled the requirements, may bid for the place. This is the law of seniority. A fireman must work three

years before he can bid for an engineer's place, and so must a brakeman before he can hope to be a conductor. One of the years must be on a freight train.

You cannot, however, push a man off the top rung of the ladder in order that others may advance. It follows that even though a man is eligible for a higher position, he may

have to wait a long time before there is a place vacant for which he may bid. One railroad man reports that there are firemen on his road with ten years' experience who are still waiting for promotion. It is said that it takes twenty-five years for a man to become a superintendent.



Courtesy of Nordberg Mfg. Co., Milwaukee, Wis.

SPIKE PULLER

These men are saved the laborious work of pulling spikes by hand. Their fingers, too, are saved from accidents and they are not in danger of being hit with flying heads of spikes. Thus machinery has changed the work of maintenance-of-way men.

Maintenance of way and structures. But other workers are necessary for operating trains besides those who actually man them.

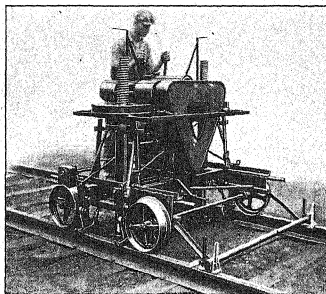
It is a big task to keep the road or way, the bridges, and buildings in good condition all the time. Foremen with their gangs of laborers do much of the actual work. Higher positions in maintenance are those of roadmaster, master carpenter, and supervisor of bridges, buildings, or track. The highest position is that of the engineer maintenance-of-way.

Dispatching trains and sending messages. Workers in still another group help with the operating of trains, but do not travel with them. They do their work from offices, stations, or towers. These are the superintendent of telegraph and signals and the trick dispatchers. The chief dispatcher watches to see how each trick dispatcher (certain periods of the day are known as tricks) is handling his trains.

Another duty is to make up the time-cards. There is also a signal maintenance department. This whole department, which gives orders when each train is to start or to change its time because of an accident or delay in the time of another, sees that the wires and the signal system are kept in perfect order, and operates switches and signals when these do not

work automatically, is most important for the safety and convenience of the entire country. A mistake in the work of any one of these may mean a terrible railroad accident with loss of life; on the other hand, careful work may mean that in spite of delay or accident trains are brought to their destination on time and people are saved many losses and hardships.

In the yards. By railroad yards we mean a place near a big city or railroad center where there are many tracks and

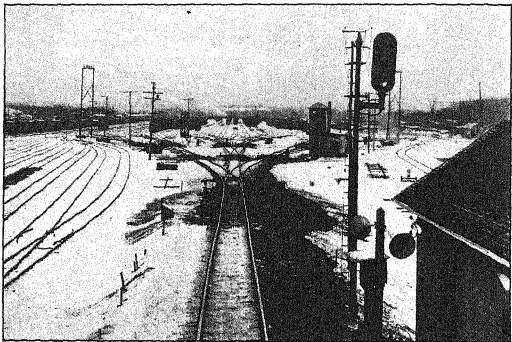


Courtesy of Nordberg Mfg. Co., Milwaukee, Wis.

ADZING MACHINE

Men in the maintenance-of-way department now have machinery to use for much of the work that used to be done by hand. This man is preparing ties for the rail-laying gang which will follow.

switches, and often a roundhouse or turntable for engines. Here trains, particularly freight trains, come from all directions. Imagine such yards in Chicago and that long trains of cars — sometimes sixty or over a hundred cars to a train — have come from the east, the northeast, and the southeast. Some of the cars that have been brought in one train are



Courtesy of General Railway Signal Co., Rochester, N. Y.

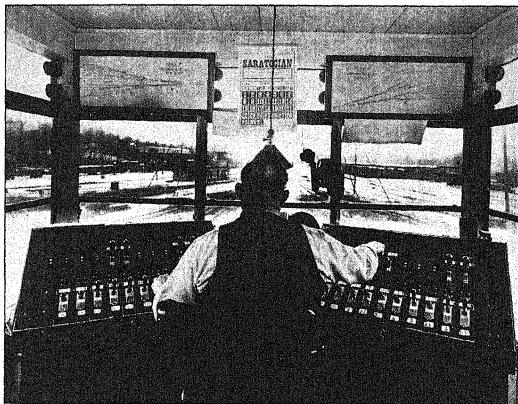
**MECHANICVILLE HUMP CLASSIFICATION YARD,
BOSTON & MAINE RAILROAD**

This picture shows some of the new inventions used for safety in railroad yards. On the track you see a car-retarder system. Here, by electricity, trains are slowed down and kept from jumping the tracks as they enter a switch. You can see where yardmen and tower-men work.

to go to Oregon, some to Mississippi, some to Iowa, and some to Dakota. Yardmasters, assisted by train crews and switchmen, see that these trains are broken up and that others are formed for new destinations.

Streetcar, motorbus, and automobile positions. The conductor on a streetcar usually has only one car, and his chief duties are to receive the carfares and to call the stops. The motorman on a motorbus or truck has a harder job

than a motorman on a streetcar. Travel on roads rather than rails brings much more danger of accident. If instead of a bus or a truck one drives a taxi or private car, one is called a chauffeur. A man who drives a private car works for a fixed salary, while the taxi driver usually has a smaller wage and is sometimes given a certain percentage of each



Courtesy of General Railway Signal Co., Rochester, N. Y.

**THE MAN INSIDE ONE OF THE TOWERS IN THE PRECEDING
PICTURE**

This man works in the signal department of a railroad. He is operating two control machines. On him depends the safety of the cars in the yards.

fare. He also counts on tips from generous passengers. On the other hand, for some companies he must pay for his own gas and oil, and often must pay for the upkeep of his car. Sometimes he even buys the car that he drives. A driver must understand machinery, be skillful in his work, quick in an emergency, and always reliable and careful. If

he drives for a company, he must be able to pass strict tests, and there is always a penalty for carelessness. In some countries, and in many states of our country, every driver, public and private, must hold a license for which he must pass a test.

The waterway. At sea we have the captain, who is a more important man than is the conductor of a train. He has complete command of the ship; the employees — there are sometimes hundreds on ocean liners — must obey his every word. From the captain to the most humble sailor, there is a series of officers almost like a military command.

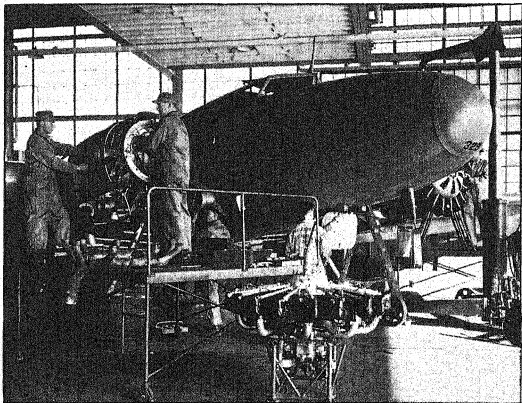
The airlines. Ever since Lindbergh made his flight, all America has given more attention to airplane activities. We are interested because the occupation is comparatively new, and because there seems to be no doubt that it will grow very much larger in the next few years. As block signals are made for the safety of railways, so beacon signals must be planted and kept lighted for the pointing out of air routes. Before the end of the year 1934, 18,896 miles of airways were lighted.

Pilots. Comparatively few men or women are qualified for the work of a pilot. Many tests, physical and mental, are given, and would-be pilots are gradually rejected. In 1935 there were 14,763 licensed air pilots in the United States, of whom 402 were women.

All except the private pilots must also be able to speak, read, write, and understand English and must pass a severe physical examination, for the lives of passengers depend upon them. Keeness of vision, ability to judge distance, size of the visual field, power to maintain one's balance; the functioning of all bodily organs, as well as the general physical condition must be tested. The difficulty and extent of both the physical and theoretical examinations depends upon the type of license for which one is applying.

But many capable men who can never become pilots can

find their place in the air service on the ground. Engineers, testers, builders, mechanics, as well as a large business force are needed. A new type of job for which a license was not formerly required is that of parachute rigger. The duties of a rigger include the inspecting and packing of the parachutes according to the Air Commerce Regulations. The two



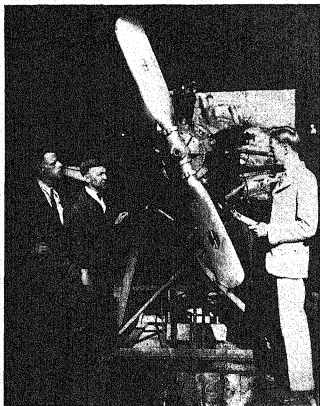
Courtesy of United Air Lines

This view shows that in the airplane service there is work to be done even after the initial construction. Here the men are installing an engine overhauled after service on nation-wide routes.

classes of licensed pilots are commercial and private; in the former group, there are limited commercial, industrial, glider, and transport pilots.

The licensing of pilots and mechanics is only one of the ways in which the government is working to increase the safety of flying. Airway beacons, radio equipment, and complete weather reporting service all help to reduce the

dangers. Indeed, the improved safety records have caused a number of life-insurance companies to strike out the clauses in their policies which did not give the holders protection in case of airplane accidents.



© Underwood & Underwood

TESTING AN AVIATION ENGINE

The Department of Commerce at Washington is interested in having air transportation safe. Here are two engineers and a business man inspecting a motor that has been tested.

Here are just a few figures to show how the air business is growing: In 1919, in England 870 passengers were carried; in 1926, 16,775. In 1919, in the world 2,585 passengers were carried; in 1930, in the United States alone 385,910 passengers were carried; in 1934, 537,637.

Test pilots. The test pilots have to face dangers in order to find out new things for the safety of others. In an ordinary trip, one

flies at an altitude of between one thousand and two thousand feet; but the air service needs to know what happens at a much greater height in case airplanes find it necessary to ride above storms. After a man has risen 16,000 feet, he encounters three dangers. Courageous men have been testing themselves to see how these dangers can be withstood at such heights, and what can be done to offset the bad effects. The three dangers are: cold, for the

temperature soon falls to about 65 degrees below zero; a lack of oxygen, for supplying which special devices have been invented; and less air pressure, which results in strange effects on a human being.

PLAYETTE

A HOME SCENE

JOHN HUNT *is seated at table studying.*

MRS. HUNT (*going to window*). I do wish your father would come. It worries me to have him late when he's out looking for a job. (*Wipes tears away.*)

JOHN. Gee, Mother, I'll be glad when I can leave school so I can help you and Dad. I've a notion to give up school right now.

MRS. HUNT. Oh, Son, don't talk like that. Just see how hard your father's had to work to learn the things he should have studied when a boy. — There he comes now. Do be patient tonight, Son. Your father is so worried and easily upset.

MR. HUNT *comes in smiling.*

MR. HUNT. Hooray! Mary, I've got a job.

JOHN *jumps up.*

MRS. HUNT. Fine! Where and what is it?

MR. HUNT. You know that new Diesel plant outside of town? (MRS. HUNT *nods.*) Well, I start work there tomorrow morning. I won't get much at first because I have to begin at the bottom.

MR. HUNT *takes off coat.*

JOHN. Why, Dad, only yesterday our vocations teacher was telling us about that wonderful new Diesel engine. And what do you think? I was just pasting an ad in my notebook. Listen to this. (*Reads from notebook.*) "Just as the gasoline engine changed or wiped out the jobs of thousands who depended on horse-drawn vehicles for their living — just as electricity changed the entire set-up in the fields of light and power — so now the Diesel

engine is fast invading both the power and transportation fields." And to think you're going to work in a Diesel factory!

MR. HUNT. Well, I had a talk with some of the men around the plant. They certainly are sold on it. They say it's the last word in mechanical power and that they're going to use them just about every place, in buses and boats and tractors, in power plants, and airplanes and trains.

MRS. HUNT. That's a Diesel engine, isn't it, that's used in those fast trains we've been reading so much about?

JOHN. Oh! we had quite a discussion about those Diesel engine trains in class. The teacher said this new engine needs only one man to run it and that puts the fireman out of a job. Some of the kids thought they ought to have the fireman anyway, in case anything happened to the engineer.

MR. HUNT. Well, Son, the engine is equipped with a "dead-man's throttle" which stops the engine if the engineer is disabled.

MRS. HUNT (*looking through newspaper*). I saw something in this paper about Diesel engines. Here it is. (*Reads from paper*.) "London to Equip Its Buses with Diesel Engines — One of the biggest victories yet gained by the Diesel engine is revealed in an announcement by London Transport that it will equip all of its 6000 buses and coaches with the oil-burning type as fast as replacements become necessary.

The change-over is expected to be complete in about ten years, when the last of the company's gasoline engines will have disappeared. The company at present uses about 45,000,000 gallons of gasoline a year. It estimates its fuel bill will be cut in about half."

MR. HUNT. Yes, that is one of the chief values in the Diesel. It cuts the cost of transportation. One of the men said an automobile with a Diesel engine went from New York to Los Angeles with a fuel cost of only \$7.35. They say the engine uses not only a cheaper fuel but less of it, also. — But, I'm hungry. Let's have supper.

MRS. HUNT *hurries out.*

JOHN (*starting out with his father*). Dad, I'm going to find everything I can about the Diesel. We have lots of stuff on our vocational shelf.

QUESTIONS AND EXERCISES

1. On a page of your notebook, draw an outline in the form of the one below, and write in each column the different duties of the man who you think is most important in each of the forms of transportation mentioned.

WORK OF MOST IMPORTANT MAN

MOTORBUSES	STREETCARS	RAILROAD TRAINS	STEAMSHIPS	AIRPLANES

2. If you can talk with a conductor or an engineer, do so; if that is impossible, hunt for some book in the library that tells about the work of either of these men. Make a diagram showing the rise of a young man to one of these positions, and write a brief account telling of some of his experiences.

3. Study this chapter carefully and then make a list of as many workmen as you can who help in the maintenance-of-way department of a railroad. Now contrive a diagram showing the different grades of work, beginning at the bottom with untrained labor, and ending at the top with the president of the road.

4. Draw a plan showing a railroad terminal, several stations, towers, switches, with miles of track (double, single, and multiple), and crossings with other roads. Put dots where the different people in the train dispatching and signal departments would be found. Now write a paragraph telling what would happen if any one of these people did not do his work carefully.

5. Read the story of some famous air flight. Write down as many kinds of work as you can, besides that of the pilot, that were necessary so that this flight might be made.

6. If you have mechanical ability, quick reactions, and great self-control in emergencies, and the power of leadership, what are the different positions in transportation that you might hold? Choose three and tell what you would have to do to get into these positions.

The following accounts are taken from the report of the Railroad Labor Board.

7. *Example one.* A freight fireman reported for duty at "A" at 6:30 A.M., switched until 8:00 A.M., then ran to "B," twenty-five miles from "A," arriving at 10:00 A.M., where he spent twenty-five minutes coaling the engine and fifteen minutes turning it. It was then 10:40 and he had time off until 3:00 P. M., when he started on a return trip to "A" arriving at the main track switch connection at 5:40 P. M. He was delayed in getting into the yard, but was finally released from work at 6:20 P.M. Count up the number of hours he was actually on duty. He was paid for nine and a half hours. Do you think the extra pay made up for the irregular hours?

8. *Example two.* A through freight engineer makes a run of 100 miles for which he is paid as for 135 miles because of mountainous country. If you were an engineer, would you rather be paid by the mile or by the hour?

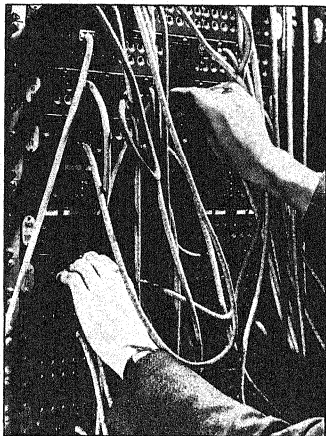
9. Look up the requirements for a pilot's license.

COMMUNICATION

Development. Transportation and communication are two links that bind the world together, and the development of the latter, although slower than that of the former, has been just as romantic. While the methods of transportation developed from the use of the human pack animal to that of the bird-like airplane, those of communication were changing from beacon fires and smoke signals through messages sent by

the early means of transportation, then along wires, and finally through the air to be caught by electrical apparatus tuned to receive them. Today, then, we communicate through the mail service, the telephone, the telegraph, the cable, and the wireless. News reaches the daily papers through all of these methods. Even pictures are sent by wireless from the other side of the globe.

Importance. Business would be helpless without these means of communication. Manufacturers thus receive orders for their goods and merchants advertise what they have for sale. Messages over the wires or over the air frequently aid in times of fire, sickness, or



© G. A. Douglas from Gendreau, N. Y.

Would you like work where it was necessary to keep track of so many things at once?

accident. Families or friends, separated by thousands of miles, may get in touch with one another in a short time. The battle of New Orleans in the War of 1812 was fought after the peace treaty was signed simply because it took weeks instead of minutes to send the news to the front. The inscription which Charles Eliot and Woodrow Wilson composed for the Post Office Building in Washington applies to all means of communication.

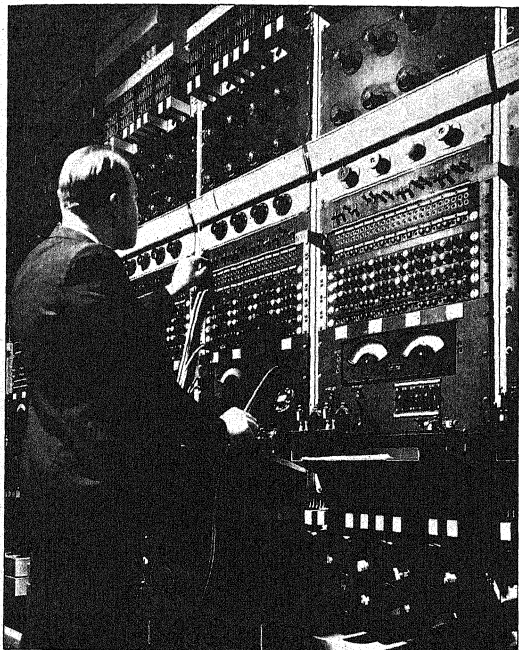
Carrier of News and Knowledge
Instrument of Trade and Industry
Promoter of Mutual Acquaintance
Of Peace and Good Will among
Men and Nations

Almost everyone uses the mail service. It is the least expensive way of sending a message. Almost as many use the telephone, of which there were over seventeen million in the United States in June, 1935. Practically every store and business office, no matter how small, has its telephone, and the larger establishments have switchboards of their own. In spite of the increasing use of automatic telephones, many girls are still employed as operators. They receive their training in company schools, where they are paid while learning. The higher positions are those of supervisor, assistant chief operator, evening chief operator, chief operator. The company prefers beginners between the ages of seventeen and twenty-five. Operators may work for the telephone company or may operate private exchanges in big business houses or in office buildings.

In telegraph work beginners may also learn the business in company schools. All telegraph operators must master the code in which messages are sent. A new invention, however, sends the typewritten message directly to its destination. Telegraph operators often work for railroads where dispatches in regard to the movements of trains are constantly necessary. Connected with the telegraph service is the messenger boy. His place is often spoken of as a blind-alley job, for he may advance no farther than captain over a group of messenger boys. If, however, he has the ambition to leave while he is still young enough to get into other work where there is more chance to advance, the job is not a blind alley for him, but simply a place to earn enough for further preparation.

Radio is the newest form of communication. One of the

most interesting positions is that of the wireless operator on shipboard. The man in this job needs courage, for in time of danger it is important for him to remain at his post no matter what the result to himself. He may communicate



© G. A. Douglas from Gendreau, N. Y.

This picture shows us a section of the telegraph room of one of the large telegraph companies.

with all parts of the world. The radio messages like those of the telegraph are sent in code. By wireless telephone it is now possible to talk across the ocean. The whole field of radio, including television, is growing so rapidly that it seems as if it would provide an ever-widening opportunity for workers. Its field includes several occupations such as those of the electrician, the telegrapher, the mechanic, the inventor, and a retinue of helpers in the workshops and the broadcasting centers. Besides these are the more evident entertainers and announcers.

QUESTIONS AND EXERCISES

1. Write an account of various methods of communication such as Indian Picture Writing, Smoke Signals, the African Tom-tom, or Wig-wagging.
2. Make as long a list as you can of jobs that are connected with radio. Tell how to get a start in one of these.
3. Find out whatever you can about the jobs in the telephone service in your community: methods of training, chances for advancement, and advantages to employees.
4. Make the same investigation of the telegraph service.

CHAPTER VII

COMMERCE: BANKING

Wherefore then gavest thou not my money into the bank, that at my coming I might have required mine own with usury? ¹

You have studied how men learned through the years that if they were to do much buying and selling, they must have money of some sort. This need of money has grown until now the world uses immense quantities of it. But even the handling of money has become inconvenient. For this reason many kinds of paper and sometimes merely records that stand for money have developed. So many kinds of work connected with the use of money and credit are necessary that special businesses have been established for this purpose. These are called financial businesses, the chief of which is banking.

How banks started. As money increased, men gradually found that they must have safe places in which to keep it. At first they could hide it in their homes, and we know that some were slow in giving up this habit. Do you remember how in early English days Silas Marner put his money in bags and hid it under the floor? Until very recently the Chinese kept their money in strongboxes concealed in their walls. Before the Industrial Revolution in Europe, the materials out of which a workman made the articles for his trade were kept in his shop. The craftsman who used the most valuable material was the goldsmith. In order to protect his gold from thieves, he had strong iron boxes with good locks. When gold became the medium of exchange, his neighbors found that the goldsmith's box furnished a safe

¹ *St. Luke, XIX: 23.* (King James' Version.)

place to keep their wealth and persuaded him to take care of it for them. Gradually the goldsmith began to lend a part of the money that was left in his keeping. He found, too, that he could allow one depositor to pay another without actually handling the money. On the goldsmith's books the amount to be paid could be canceled from one man's account and added to that of the other. But there were many steps between the goldsmith's box and the modern bank. Steadily the banking business has grown until in 1932 over 300,000 people were employed in banks in the United States.

Services of the modern bank. The most conspicuous service rendered by a bank is that of furnishing a place in which to deposit money for safekeeping. Your father probably has a checking account, that is, he has put money in the bank, and he may pay his bills by writing checks for any part of this. Perhaps you yourself have a savings account. You cannot write checks for this, but since your purpose in having it is to save money, you do not mind, for you will seldom wish to draw it out, and when you do, it is possible to take your book to the bank and get as much of your money as you need. Besides, the bank pays you interest on your savings, so your money is earning more money as long as you leave it in the bank.

Trusteeship. Some banks are also trust companies. Many a man has worked for years, has saved and invested, and saved again until he has laid aside a fortune, small or large. If he is wise, he made a will as soon as he invested his first money. Now suppose that according to the will the money was to go to children who were too young or too inexperienced to take care of it. He could appoint the bank as his trustee, to take care of the money and to pay it out as he had wished. Sometimes sums of money are given to hospitals or colleges, and banks are made trustees.

Credit and loans. Some new expense may be necessary for a business man. A contractor may undertake to build so

many structures that he cannot pay for the building material in advance. Some of this he must buy in a distant city where he is not known. The credit man¹ in the lumber company will not consent to send the material until he has secured the money. The contractor's banker, however, knows him, and the company from whom he buys knows the bank, so he pays interest at the bank and buys its credit. Again, a man may be in need of money which he knows he will have in sixty or ninety days. If his credit is good, or if he can leave with the bank bonds or other property that may readily be sold for the amount that he wishes, the loan department will probably lend him the money at the regular rate of interest.

When a man borrows from the bank, he must give his note. When he borrows from another person, he should do the same thing. Suppose that he does not pay when the ninety days have passed. The lender can turn over his note to the bank for collection. The bank must be paid for this service. Perhaps the lender needs money before the ninety days have passed. The bank will give him the money on the note, deducting the interest for the rest of the term of the note and the collection fee. This is called discounting.

Other services. Banks will cash checks for people whom they know even though the checks are drawn on another bank or are from another city. Of course, the money designated on the check must be collected from the other bank unless it has done the same sort of service and the accounts balance. Through an exchange department, business is done with banks in other cities; through a foreign department, business is done with banks in other countries. A customer who wishes to travel may obtain a letter of credit, by which he may get money at one of a number of banks in different parts of the world. All of these services require people to attend to them. Let us see who some of these are, or what jobs there are in a bank.

¹ See Chapter V.

Man's place in banking. Messengers, clerks, bookkeepers, and stenographers are found in banks as in other business offices. The machine has also invaded the bank and many of the employees are, for at least part of the time, machine operators. The loan, collection, credit, and discount departments all require special clerks, who must do their work

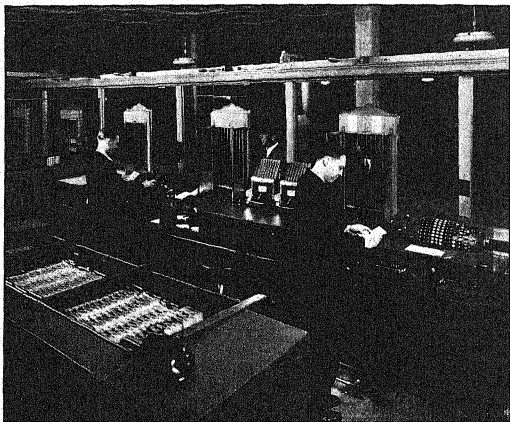


Photo by Kaufmann & Fabry

This view of a teller's cage shows several of the operations involved in the deposit or withdrawal of money. The machine in use registers the transaction.

with precision and must have the qualities of those in similar positions in other business houses.¹ The work of the transit clerk concerns checks drawn on other banks or from other cities.

Tellers. The old meaning of the word *tell* is "to count." We read in old stories of how the "shepherd tells his tale,"

¹ See Chapter V.

which means that he counts the number of his sheep. The teller in a bank gets his name from that original meaning. He handles the money, so, of course, he counts it. There are receiving tellers and paying tellers; the former take in the money for deposits, the latter pay out money when proper checks are brought to them.

The executives. Higher in position than clerks, bookkeepers, or tellers are the cashier and his assistants. Indeed, the cashier stands very high on the ladder of bank positions, and his place is the goal to which the clerks and tellers look forward. Higher still are the officers, the president, vice presidents, and treasurer.

Investment companies. Before 1933 salesmen were more important in banks than they are now, for banks bought large quantities of paper called stocks and bonds, and sold these to individual investors. Then a law forbade the banks to do this directly, although they are still permitted to act as agents, buying for the customer what he orders. Meanwhile the stock and bond business under federal license (and in some places, state licenses) is carried on by investment companies whose principal business is to deal in securities. Let us look into the nature of these valuable papers.

Stocks and bonds. Business firms are often organized as corporations. A group of men wishing to start such an organization applies to the state government for a charter. Under the authority thus obtained, the firm — perhaps the United Flour Company or the Eastern Watch Company — proceeds to carry on its business. Money is needed in order to launch and carry on any enterprise. This money or capital may be obtained by the company through selling shares of stock. These shares are represented by certificates, and a person buying or investing in such shares becomes a stockholder or part owner in the business. In a meeting of stockholders, he is entitled to one vote for each share of stock that he owns. If the business prospers, he may receive a

part of the profits. He takes his chance with the rest of the owners.

Sometimes a corporation wishes to borrow money. This may be necessary for such purposes as to construct additional buildings or to purchase new machinery. The money is obtained by the sale of bonds and is payable after a definite number of years. The purchaser of the bonds thus lends



Photo by Kaufmann & Fabry

Money saved in banking is often invested in stocks or bonds. Men in offices like this list the prices on the blackboard.

money to the corporation. He receives interest twice a year, and when the term of the loan has expired, he will be repaid in full. The bond is really a note given by the borrower. A first-mortgage bond is secured by the property of the corporation, that is, if at the date of maturity the borrower cannot pay back the amount borrowed in any other way, the property must be sold and the bondholders paid.

Thus bonds are safer investments than shares of stock. Although there is a possibility of gaining more profit in the way of dividends from stock, there is also a possibility of gaining no profit at all. While the money paid for a bond must be paid back to the bondholder at a definite time, that paid for shares of stock need never be returned. It has been paid into the business and one who wishes it back must simply depend upon his success in selling his shares. Stocks and bonds are usually sold in denominations of \$50, \$100, \$500, or \$1,000. An investment company needs vigorous salesmen.

Opportunities and compensations. Young men have always seemed to make a fetish of bank jobs. At one time bank work represented the cleanest and most respectable variety of white-collar occupations. The ladder of advancement looked attractive, the first rung, a messenger boy, the top, the president — or at least a vice president. One would feel important in one's own cage labeled with one's name. Then think of the pleasant contact with important people and of business all over early in the afternoon! But after all, the pay is often less than that of many a skilled craftsman and the climb up that ladder is very slow indeed. Banking as an occupation is overcrowded, and one machine operator sometimes takes the place of several clerks. Even the short hours are not what they seem, for employees do not leave when bank doors are locked to the public. When hard times come, bankers are not exempt. In the depression of the 1930's one relief officer reported that many former bank vice presidents were willing to do anything — even unskilled labor.

Let us face squarely the compensations that come to the banker. He is still needed. Without him the world's business could not prosper. There is a real career for an intelligent young man who is willing to begin at the bottom. As credit men, bond experts, and cost accountants, bank em-

ployees can use their judgment in important decisions. Though they may not have the thrill of a daring adventure, they may have the satisfaction of taking part in a necessary work in pleasant surroundings.

QUESTIONS AND EXERCISES

1. A woman is a buyer in a department store. Every month she is paid \$300. Her city is raising money for a new hospital. She gives \$50. A bank receives the pledges that are made, and buys bonds so that the money may make more money. In a year a contractor to build the hospital is hired. He must buy material and pay his men. In another six months the building is completed, but in all these processes from the paying of the buyer's salary to the paying of the bricklayers on the building, no coins or paper money have passed from one hand to another. Explain in detail how this is possible.

2. Look through a daily paper to see if you can find what the capital of some bank is. Perhaps you can find the amount on the circular of the bank itself. What is meant by capital? What is meant by capital stock?

3. See if you can get a blank check from a bank. Ask your parents what they put on the stub in a checkbook when they write such a check. Find out what balance the bank requires the person with a checking account to leave in the bank. Give as many reasons as you can for this requirement. Why do you think a bank pays interest on money in a savings account, but not usually on money in a checking account?

4. In an unabridged dictionary look up the following words and write out a careful explanation of each: investment, bond, stock, interest, insurance, collateral, coupon, dividend, mortgage, speculation. Explain all these in their meaning as they are connected with money and banking.

5. If you were obliged to borrow money, would you rather give your note to a friend or to a bank? Why?

6. Explain this quotation from Shakespeare:

Neither a borrower nor a lender be ;
For loan oft loses both itself and friend,
And borrowing dulls the edge of husbandry.

Do you agree that this is always so?

7. Make a ladder or a pyramid or a diagram of any kind that you prefer, showing the positions in a bank from that of a page to the chairman of the board of directors.

8. In the diagram that you have just made, put a star next to the name of every position that you think a girl or woman might fill.

9. Write a brief explanation of the work of each of the kinds of clerks mentioned.

10. Again take the diagram that you have made for question 7, and after the name of each position state the lowest year in school that you think one should complete in order to do good work here. Use figures 1 to 12 for the grades from the first to the last year of senior high school. Use I, II, III, and IV for the four years of college.

11. Write a story entitled, "A Day's Work of a ——." Fill in the blank with the title of any bank worker. Be sure to tell at what hour he begins his work and at what hour he stops.

12. Which of the occupations that you have studied so far interests you the most? Which do you think it would be the hardest for this country to do without? In which could you do the best work? What particular position would you like best?

13. Consider in regard to banking the points that you studied in Chapter II about choosing an occupation.

CHAPTER VIII

MANUFACTURING AND BUILDING

MANUFACTURING

Whenever the arts and labors of life are fulfilled in this spirit . . . of doing whatever we have to do honorably and perfectly, they invariably bring happiness. . . . From lowest to highest, through every scale of human industry, that industry, worthily followed, gives peace. — *Mystery of Life*, RUSKIN

DEVELOPMENT

You have studied about the men who raise things from the soil, and you have learned how important their occupation is. You have learned about men who sell things and who send them from one part of the country to another. Such workers are important, for without them we should not be able to use the products that are raised. Usually these products must be changed in form, however, before they are of any use to us. The work of changing them is called manufacturing. It has always been one of the most important occupations of man. Let us see the story of its growth.

Early times. Before the middle of the eighteenth century, everything was made by hand. The word *manufactured* means "made by hand." In tiny shops in their own homes, workmen or craftsmen sat and fashioned articles according to their taste and skill out of cloth, of wood, of leather, or of gold. It took a long time to complete an article, for usually one person made it from start to finish with the aid of just a few tools. Even the material was prepared by hand.

Sometimes there were journeymen helping in the shops; sometimes apprentices learning the trade.¹

Craft guilds. In those days there were guilds somewhat like the labor unions of today, except that they included employers as well as employees. As there is now a union, so there was then a guild for every trade. One object was to prevent anyone from entering the trade who was not well prepared. The guild made the rules in regard to apprentices. Another object was to see that every article was what it was claimed to be. If the guild found that an artisan was not fashioning his work according to rule, it had the right to destroy the articles he had in his shop ready for sale. The men of a single craft had their shops on the same street, which might be called the Street of the Goldsmiths or the Street of the Shoemakers.

Industrial Revolution. These artisans probably never thought for a moment that some day their way of working would almost disappear. They little thought that instead of sitting quietly in a shop, working skillfully and not too fast, workmen would one day be taking long rides from their homes to big, noisy factories where all day long they would stand at one machine, pulling one lever or feeding in one material. They could not have imagined men doing this as fast as they could make their hands go, perhaps never seeing the finished shoe or chair, and knowing that their part in making it was very small indeed. But there were many steps in the change from the old way to the new.

Inventions. The eighteenth century had just passed its halfway mark when changes began that finally affected every craftsman and every shopkeeper. Inventions caused these changes. Women had been spinning one thread at a time; with the spinning jenny two hundred could be spun at once. The loom was changed so that the weavers, with the help of water power, could keep up with the spinners. The cotton

¹ See Chapter I.

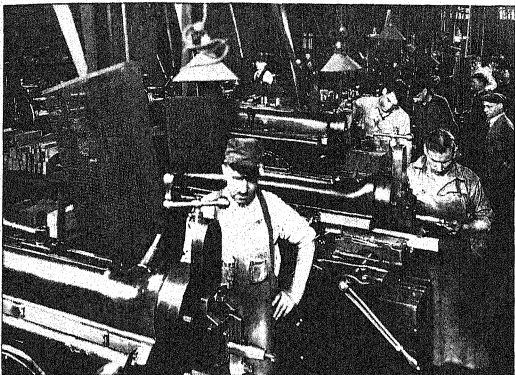
gin brought new supplies of raw materials. Then, most important of all, came the steam engine. The old shops were too small for the machinery that was the result of these and other inventions that followed. Larger buildings were needed. By 1850 much of the Western world was manufacturing in factories by machinery instead of at home by hand.

The machine. If you had been a craftsman a hundred years ago, you would have been sorry to see the coming of the factories. But if you could have looked ahead to see people enjoying such comforts as warm houses, easy transportation, telephones, and well-equipped hospitals, you might have been willing to give up your own satisfying life for the sake of the improvements that were to come. Today even people with small incomes may ride in heated automobiles. In the days of the handicrafts, kings themselves were forced to ride in cold, uncomfortable carriages. We are told that as Josephine rode to the cathedral to be married to Napoleon her feet were almost frozen.

For a number of reasons, machine work has been able to accomplish what handwork could never do. First, it is much more rapid. By hand, a worker could remove the seeds from five pounds of cotton in one day. Now one machine will clean four thousand pounds. Second, it is more powerful. A man with a heavy hammer could probably strike a blow of about 150 pounds. The steam hammer can deliver a blow of several tons. Third, the machine has more endurance, can stand the strain better than a man can. When a man has labored for eight hours, he needs rest, while a machine can work day and night without stopping, month after month. Fourth, it is more accurate. It took many years of training and practice before a workman could fashion or carve material precisely according to his plan. Modern machinery can measure to the ten-thousandth part of an inch. Fifth, because of these and other reasons, a

product can be made by machine at less expense than it can be made by hand.

The factory. Imagine yourself on a visit to a factory. You would be almost deafened by the noise of belts clicking, motors humming, and machines whirring. You might see wheels turning, huge ladles filling and emptying themselves, or finished products whizzing from machines to containers.



WHERE TOOLS ARE MADE *Photo by Kaufmann & Fabry*

Today machinery has developed so that expert workmen are needed as much as in the old craft days, though in a different way. The excitement of machinery and the skill of the worker are combined.

You might wonder where there could be a place for you in such a plant. You might ask whether any human beings were needed, for even the men, who work beside the machines, seem to be a part of them. We are to find, however, that many boys and girls will find their work in just such places. We must learn also what it means to men and women to earn their living in a factory, what they meet of happiness and of hardship.

QUESTIONS AND EXERCISES

1. Try to find for your notebook a picture of some article made by hand and another article of the same sort made by machinery. If possible, find five sets of these. In each case tell which of the two articles you prefer and why.

2. On a page of your notebook draw a 10" \times 6" rectangle. One inch from one 10" side draw a 10" parallel. Label the left 6" line the year 1700, the right 6" line 1935. Lay off the 1900 line 6" in length, and similarly the 1800 line. In the 10" \times 1" space locate in their proper places: *Washington*, *Jefferson*, *J. Q. Adams*, *Jackson*, *Lincoln*, *Cleveland*, *Roosevelt*, *Wilson*, *Hoover*, and *F. D. Roosevelt*. In the larger space locate the following inventions: *Hargreaves' spinning jenny*, 1767; *Cartwright's loom*, 1784; *Whitney's gin*, 1792; *Newcomen's engine*, 1700; *Watt's engine*, 1760; *first steam engine to run spinning machines*, 1785; *Fulton's steamboat*, 1807; *Stephenson's locomotive*, 1814; *Morse's telegraph*, 1844; *McCormick's reaper*, 1834; *Bell's telephone*, 1876; and *Marconi's wireless*, 1907. Add ten more inventions with their dates.

1700	1800	1900	1935

3. Make a diagram of two vertical columns with ten parallel horizontal spaces in each. Fill the spaces in the first column with names of articles that are in use today. In the parallel spaces tell what changes were made in

the raw material before the articles could be used. For example:

ARTICLES THAT ARE IN USE TODAY	CHANGES THAT WERE MADE IN RAW MATERIAL BEFORE ARTICLES COULD BE USED
Curtains	Silk — spun and woven, material cut and hemmed

4. Describe Silas Marner's workroom and compare it with the place where similar work is done today.

5. If you could have chosen, would you have lived in the handcraft or in the machine age? Give as many advantages on both sides as you can.

6. Draw an outline like the one below and fill the blanks. Try to add two more processes.

PROCESSES	BEFORE 1750	TODAY	GAIN, PER CENT
Cotton cleaned of seeds	5 lbs. a day	4,000 lbs.	
Hammer blow			
Worker's endurance per day — <i>i.e.</i> , man <i>vs.</i> machine			
Spinning thread			

7. On a page of your notebook draw an oblong 5" × 6" like the one on page 146. Fill in the blanks of the two columns at the right.

COMPARING A BEGINNER IN HANDCRAFT OF THE MIDDLE
AGES WITH THE FACTORY HAND OF TODAY

	IN MIDDLE AGES	TODAY
Time spent in learning		
Wages received		
Place beginner lived		
Tools beginner used		
Amount or number of finished articles turned out per year		
Age beginner started to work . . .		
Number of boys and girls employed .		

MAN'S PLACE IN MANUFACTURING AND BUILDING

The unskilled laborer. In manufacturing plants there are many workers who start with no training and no experience. These are untrained workers. It takes an hour, a day, possibly a week to teach these people to go through a few simple motions, which is all that is necessary in order to hold many of the factory jobs. Many of these laborers are employed lifting, carrying, or going through a series of motions the same day after day, and receiving small wages.

Almost anyone who has the physical and mental strength to stick to a job through the eight hours of a working day may find a place in the ranks of the unskilled or untrained workers. Much that is done in a factory is routine work. Such work does not require skill, but it does require a willingness to stand monotony, that is, to turn a crank or pull a lever without caring whether the actual work is pleasant or interesting.

The semiskilled workman. The next group is composed of semiskilled workmen. These do work that requires training which takes weeks rather than hours or days. Sometimes they are helpers to the skilled workers, and sometimes they have jobs of their own, such as operating some simple machine or assembling (putting together) the parts of a product, for example, a telephone.

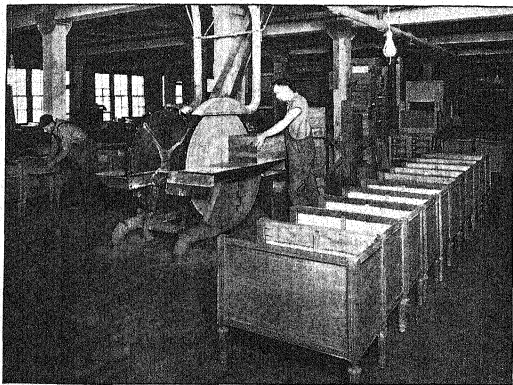


Photo by Kaufmann & Fabry

A portion of a furniture factory is pictured here. By sanding the wood, as the man in the center is doing, a smooth finish is secured.

The skilled artisan. After this we come to the skilled and highly skilled workmen. These workers have learned to do some rather difficult work in the factory. The training has taken months and perhaps years. In some trades they are called journeymen as were the skilled artisans in the Middle Ages. They must have a mechanical aptitude. This means they must be ingenious in working with machinery and tools. If your mother's sewing machine gets out of

order, do you like to try to discover where the trouble is? Can you put a new ribbon in the typewriter or put up new shelves in the pantry? If you have a real mechanical aptitude, you should be able to figure out a way of doing such things. The more highly skilled the work that you would like to do, the more natural ability and training you must have.

While you are still in high school it may be possible for you to study a trade along with your other studies for at least two years. You could not really learn a trade in this time, but you would get a very good start. Certain unions have their own trade schools. Many of the trades are taught by a regular apprentice system in the factories. If you would do highly skilled work, you must somehow or other learn a trade.

The executive. Over the skilled workmen we have the men who direct the work of the factory. First there is the *foreman*, who must see that a certain amount of work is done correctly by a group of people, either unskilled, semiskilled, or skilled. Most factories are divided into departments over which are *department heads*, often called managers. These departments may have several groups of workers, each group under a foreman, and the head or manager is responsible for whatever kind of work the whole department does. There is usually a manager or superintendent in charge of the whole factory. Foremen, managers, and superintendents are called executives. To be an executive one must have the qualities of a leader. He must be able to make other people work to the best of their ability. He must also be able to plan a big layout of work. Just what shall the routine workers do? How much can be expected of them each day? What jobs shall be undertaken by the skilled workmen? Where shall the different departments of the factory be placed, and what is the best place for each machine? How should the work be divided, and in what order should the

steps in making any particular article come? Executives must be able to answer these and many similar questions. They must be leaders and planners.

Among the executives, the foreman needs the least amount of special training. Some business men say that in their plants, a young man starting with a college education, and having from three to five years' training in the plant, has an excellent chance to become a foreman. On the other hand, men have become foremen after training in the plant even though they have gone to work from the eighth or ninth grade. For other executives college training plus shop training is the best preparation. It has been said that shop training is like college training; if one does not take it in the beginning, he will never get it later. A man who has done office work in a factory for a few years is not likely to go back and start in the shop even though he may have learned by his experience that such training is the surest way of getting into executive work. An executive in a textile mill had his college education, then worked for years in the mills with the mill hands, and finally became a superintendent. Probably the best training for the manager of any factory where machinery is used is that of a mechanical engineer. With that training he knows the principles on which all machine work is based and so may be transferred from one sort of factory to another.

QUESTIONS AND EXERCISES

1. Draw an oblong and divide it into two vertical columns extending the long way. Make twenty spaces by drawing horizontal lines parallel with the short end of the oblong. In the left-hand column fill in each space with the name of some position in the manufacturing or building trades. In the corresponding right-hand space tell briefly the amount of education that one should have for each position.

2. Explain *technical work, specialized knowledge, apprenticeship, executive, semiskilled, college degree, textiles, monotony, routine.*

3. If you live near a factory, or if you are acquainted with anyone who works in one, try to find out whether there is a training school in the plant. If there is, learn as much as you can about it and report to the class.

4. Divide the class into groups of ten each. Let each group elect, as leader, the one who they think has the most executive ability. These leaders should then call their groups together and plan to manufacture — of course by hand — some article. The leader should assign some part of the task to each member and after two or three days should show the finished article and explain the process to the class. The article might be made of paper, which along with paste, pins, and so on someone would have to secure. Another could make the pattern, another cut out the parts, someone paste or fasten them together, and someone else decorate the article. Other tasks could be invented.

5. What is the duty of the efficiency expert? of the service engineer?

6. Find out about the new apprenticeship that many manufacturers are planning to use with government co-operation.

7. Invent a diagram to show the grades of work in a factory, bringing in every class of worker from the unskilled to the highest executive. Make the measurements such that the diagram will show in which grades are the most workers. You might make this in the form of a pyramid or a flight of stairs or a ladder or blocks of stone. Perhaps you can think of something better than any of these.

8. On a page in your notebook draw a 6" × 9" outline similar to the one below. Fill in the blanks, giving information about some factory that you know something of. Perhaps there is a factory not far from your home.

Name of factory	
Title of man at head of factory . .	
Total number of employees . . .	
Per cent skilled	
Per cent unskilled	
Period of apprenticeship of skilled laborers	
Articles manufactured	
Location of market	

KINDS OF INDUSTRIES

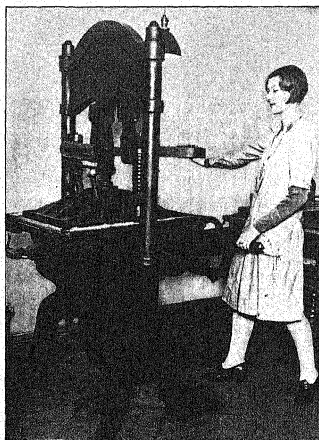
Bureau of Census divisions. The United States Bureau of the Census has divided the business of manufacturing into fifteen groups according to the things that the factories produce. In each you would find the three grades of workers and the executives. If you would like to have your adventure of living in manufacturing or in building, you should consider two things, the grade of work you would rather do and the material and product with which you would rather work. The divisions made by the Bureau of the Census are as follows :

1. Food and kindred products
2. Textiles and their products
3. Iron and steel and products (except machinery)
4. Lumber and allied products
5. Rubber products
6. Paper and printing
7. Chemical and allied products
8. Stone, clay, and glass products
9. Metals and products (excepting iron and steel)
10. Tobacco manufactures

11. Machinery (excepting transportation equipment)
12. Musical instruments
13. Transportation equipment
14. Leather and its finished products
15. Miscellaneous

Let us examine a few special occupations.

The clothing industry. We are told that in the making of men's clothing there are no definite steps in advancement



Underwood & Underwood

This student is operating an old-fashioned hand press such as Benjamin Franklin used. She is "pulling a proof."

and that the beginner may start with no training at all. There are workers who all day long do nothing but sew on buttons. They are paid according to the number of buttons they sew on, putting the thread through the holes a specified number of times. There are cutters who cut out a number of coats at one time with an electric cutting machine. There are pressers, seamers, collar makers, basters, trimmers, and sleeve makers. From their names, you can

see what these workers do. There are many other divisions of work in the making of a suit of clothes.

The printing industry. The printing trades show us still other examples of skilled and unskilled workmen.

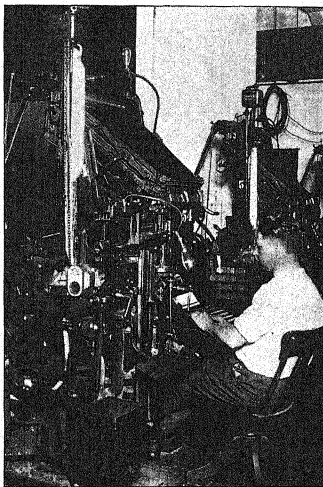
The untrained worker. The printer's devil comes without experience or training and does odd jobs to assist the printer.

Boys and girls can get work in the bindery without previous training. They spend most of their time feeding machines with printed sheets, which are to be folded or sewed, or feeding paper or boards to be cut or trimmed, or perhaps running machines for punching holes or stapling.

The compositor.

In the composing room we find work that requires skill and training. The compositor sets type for printing. There are three ways in which he may do this. The old way was to set the type,

letter by letter, by hand, and this method is still used for some kinds of work. More often the type is set by the monotype or linotype machine. These machines are worked by means of a keyboard which looks something like that of a typewriter. As you watch the linotype operator, you are



P. & A. Photo

In the composing room, linotype machines such as this are used. Do you think the man operating it would have to understand all the mechanism in order to do his work well?

reminded of the patterns and casts in the metal trades. Molds of a line of print are formed (as he works) and carried to a part of the machine where they are filled with molten metal. Monotype and linotype operators require more skill than do the machine operators in a clothing factory.

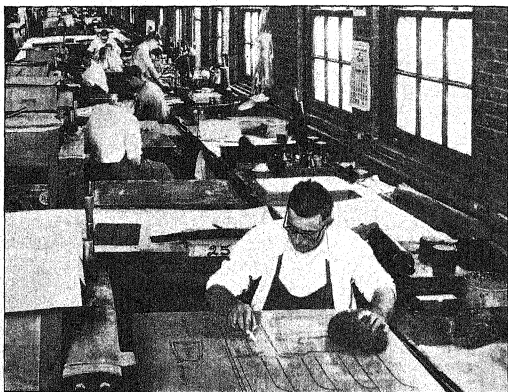


Photo by Kaufmann & Fabry

Here is a man making a hand transfer from a lithograph stone. It will be used as a proof for correction.

The pressman. In the printing room are three main kinds of presses, each requiring feeders, assistant pressmen, and pressmen. These are the platen, the cylinder, and the web press. The platen press is used for ordinary small printing. The cylinder press is used for books and magazines. The web press seems as marvelous as the combine which is used on the big wheat farms, for it is capable of doing many different kinds of work at the same time. It is

used chiefly for newspapers. This press not only prints, but also trims, folds, and counts the papers. It sometimes even inserts loose sheets in certain parts. Pressmen are highly skilled workmen.

The building industry. *The carpenter.* It is not long since the all-round carpenter did most of the work in building a house. Now more than twenty-five trades are represented. Much of the work that formerly belonged to the carpenter on the job is now done in factories and brought



Photo by Kaufmann & Fabry

This is a typical newspaper office in a large city. Could you come in and hastily write your news story in the midst of noise and confusion?

in its completed state to the building that is being erected. While the general carpenter is not the main builder as he once was, he still has an important place in every building. His work is one of the trades which is directed by the general contractor. Many carpenters have become general contractors.

The contractor. The contractor must be able to manage men, and to organize work. He must have some capital. He lets out work to many subcontractors, almost as many as there are trades. The general contractor usually makes an agreement with the owner for the erection of the whole

building. How does he know how much to charge, or to *bid*, as it is called? That question suggests another occupation which is very important in the building trades today.

The estimator. Estimating is called a new profession. Formerly the contractor tried to estimate how much the material would cost, how much he must pay his workmen, and how much he would need for other expenses. Now the estimator figures this out very carefully. He should have



Here is an estimator at work for contractors. If figuring costs and understanding values interest you, you may enjoy this occupation.

an engineer's training, though a few high schools are offering courses to teach boys the estimator's part in the business of building. He works with an architect's plan which specifies what quality of materials is to be used. He must figure out how much of each material is needed and what it will cost. He must estimate how long it will take to complete the building, what kind of workmen and how many he will need, and thus find the cost of his labor. He must also include estimates from the subcontractors. When he has collected all these figures he must add the contractor's profit to the cost of the building before submitting his bid to the customer.

In the case of public buildings, such as post offices, state hospitals, or school buildings, the law requires that the lowest bid be accepted.

QUESTIONS AND EXERCISES

1. If you were to take part in the making of clothing, would you rather have for your goal a small tailor shop where every garment is made to fit a particular person, or would you prefer a large factory where the work is divided? Give as many reasons for your choice as you can.

2. From a metal or a printing industry, choose three workers. Try to describe in your own words exactly what these men do. Tell also what they are helping to make or to print. Get your information from your outside reading and from people who have had experience.

3. On a page of your notebook make a $6\frac{1}{2}'' \times 9''$ frame of two columns $3\frac{1}{4}''$ each. Head one column *Classes*, and the second *Articles Made*. Make ten equal horizontal spaces across the two columns below these headings. In these spaces in the class column write the names of any ten of the classes of manufactures as given by the Bureau of the Census. In the other column write in two articles in each space as examples of that class.

4. From the Bureau of the Census report on Occupations, make a study of the numbers in the occupations listed in this chapter. Make a diagram of four columns. In the first write the names of the jobs or positions. Label the other three *Number of men*, *Number of women*, and *Total number*. Now fill in the numbers from the census report. Prepare to argue in class either for or against women working in factories.

5. Make a list of as many groups of workmen as you can who are engaged in the occupation of constructing buildings. Choose three of these and tell of the work that they do.

6. Would you prefer an occupation that required great skill of hand or would you rather manage the work of a

group of people? In a school play would you rather train a group of people to act or would you prefer to be an actor yourself under a trainer?

7. Imagine yourself an estimator for the building of a radio set, for the making of a dress, coat, and hat, for the building of a dog's kennel, or for the making of a dozen loaves of bread. Bring your figures to class and compare with the figures of others for the same article.

8. If the estimator is so valuable in the building trades, why does he work for a contractor? Why not be a contractor himself and make the profit?

9. Make a list of ten new businesses. Make a list of ten that seem to you to be dying out.

10. What is a stereotyper? an electrotypist? Where do engravers and lithographers work? What is a hammer-smith?

11. Write an imaginary story of a day's work of some man or woman in some manufacturing or building occupation. If you know anyone experienced in any of these, ask him to help you.

OPPORTUNITIES AND COMPENSATIONS

Opportunities. A young person full of energy and eager to learn can usually find a place in the industrial world. The fact that there are fourteen million people in the manufacturing and building trades would seem to show that there are many beginners every year. You may not be able at first to get the job you want. The entrance to some trades is often limited by union regulations. Some unions allow only one apprentice to a certain number of journeymen workmen in each shop. A trade might become overcrowded and either members would be out of work or the pay would have to be reduced. In times of business depression workmen are laid off and it is very hard for a new person to get in. Also, in this group of occupations we find

seasonal work. In the clothing industry, for instance, the factories are busy in the summer and winter manufacturing goods for the fall and spring selling in the stores. Most of the building trades are seasonal. In cold climates there is little building in the winter and many workmen are out of jobs.

Advancement. If you should find a place in one of the building or manufacturing trades, your chances for advancement would be the same as in any other field. Whether you remain in the ranks of the unskilled workmen or whether you become highly skilled or an executive will depend on your training, your natural ability, and your energy.

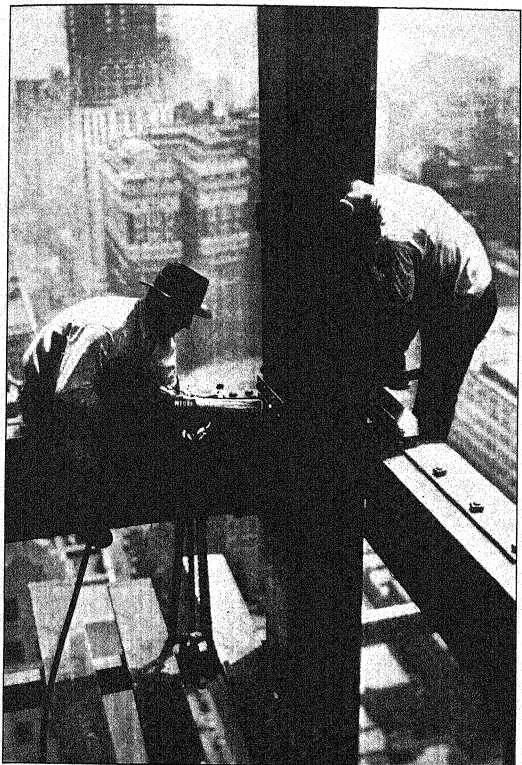
One example of a man who rose to a high position in manufacturing may interest you. While still in college this young man grew restless and wished to get into actual work. He was unwise in leaving college but wise in the way that he met his problem after he did leave. He went at once to a large plant and applied for a job. The manager, who happened to know the boy's father, called him to ask if he were willing to have the boy do untrained factory work. The father's reply was, "My greatest wish for my boy at present is to see him get his college degree. You will do me a favor if you make the work so hard and disagreeable that he will decide to leave and complete his education." For a long time it seemed to the boy that he was never to do anything but polish brass door handles and other metal in the factory. He did vigorously and carefully everything that he was asked to do, hoping only to be sent to all departments so that he might learn the business.

He did the routine tasks so well that finally he was put into what the boys jokingly called the "mahogany room." This was the office, the goal of young men who do not like dirty, backbreaking factory work, or who are not mechanically inclined. After a few weeks he begged to be sent back into the factory. "I do not wish to spend my life figuring

how much money is made and how much is spent," he said. "I want to learn how the products of this factory are made." So he went back to the shop. The knowledge of physics and mathematics that he had gained in school helped him to understand the machinery as he was sent from one department to another. This showed him how much better it would have been if he had completed his college course.

It was too late to stop work and go back. To offset this disadvantage, he entered the engineering training school in the factory. He made up for other losses by spending his evenings working on correspondence courses. When he had learned enough about the manufactured product he became a first-class salesman for it. He became expert in both the engineering and sales side of the business and was advanced from one department to another, each time having more responsibility. He was sent from one part of this country to another and finally to a foreign country, where he took complete charge of the work for his company. Having been entrusted with a high position, he went to work with the same spirit with which he had entered the factory as a boy. It was the first time that he had had complete responsibility. He wrote home, "I had always thought that the big boss had simply to sit in a chair and give orders. I find that I never had to work so hard in my life, but I feel repaid on account of the satisfaction of overcoming difficulties."

Opportunities for women. Recent census reports show that almost two million women are working in factories. They are found among the unskilled, skilled, and executive workers. A proof that they can understand the difficult processes in manufacturing is that they have invented a number of helpful devices for use in factories. Women's inventions are constantly increasing, although they are still in number far below those of the men. During a recent ten-year period, 5016 patents for inventions were obtained by women. Here are a few examples of their patented



Courtesy of "Fortune Magazine"

Many stories above the street, the steel riveters must frequently do their work.

devices: mold for casting metals, sand-molding machine, dust collector for small metal grinding machine, gauge attachment for shears, soldering iron, multiple wire drawing machine, wire twister, rotary engine, steam boiler, water motor, glass-grinding machine, circular glass cutter.

Compensation. One meaning of compensation is the reward in money for work done. The amount of this will depend on the grade of work in which you find your place, the special industry which you select, and the part of the country in which you live. This amount is also affected by the general conditions of business, whether in depression or prosperity. But the money return is not the only compensation. One manufacturer has said, "The older men in industry who seem to get real satisfaction out of their lives are only those who have produced something that added to human happiness and let the financial compensation come as a result."

Because factory work is monotonous, you may not be attracted to it. A man may spend his entire day punching holes through which rivets and screws are to go, another may heat rivets and toss them to the riveters, and still another may spend his time feeding a machine with material. At times the monotony and the whir of the machinery may be very hard to stand. If a boy chooses to go into a factory because he would like to reach an important place in manufacturing, and if he really has enough ability and energy, he can stand the years of monotony and noise while he is learning and proving that he is worth more interesting work. Perhaps, however, you have not skill of hand, and if you go into factory work you will never be able to rise above the level of routine labor. You can at least know that the finished article cannot be made without your share in the work. If you become a skilled tradesman, you will find great joy in turning out a good piece of work. A gauge maker who grinds and polishes to bring his gauge down to

one ten-thousandth of an inch must have a feeling of satisfaction when he sees the perfection of his industry. Many skilled workmen have no ability to manage men and do not desire executive positions, but those who show the quality of leadership and have learned a trade are likely to be raised to managerial positions. Whatever step in the stairway of manufacturing a man may reach, he may find satisfaction in feeling that he is doing to the best of his ability some part of the work that is necessary to produce a finished article which will add to the comfort and convenience of mankind.

APPRECIATION

Manufacturing and building together with agriculture supply the fundamental necessities of life. Not all of us can have a share in the work. But we can realize the contribution of those who design, plan, and manage our great industries and those "that dig and weave, that plant and build; workers in wood, and in marble, and in iron, by whom all food, clothing, habitation, furniture, and means of delight are produced."¹

QUESTIONS AND EXERCISES

1. List the seasonal jobs that are included in any of the occupations discussed in this chapter.
2. Write on the blackboard the names of the trades represented in your community. Let each one in the class select a trade and, if possible, interview a union member of that trade to find out how a boy may become an apprentice.
3. Interview anyone that you may know in an executive position in manufacturing or building and be ready to tell the class the story of his adventure.
4. Draw a diagram like the model below. In the first column place the names of ten occupations suggested by this

¹ Ruskin.

chapter. Fill in the remaining columns as indicated with one or two items. Notice the pay depends on the part of the country.

OCCUPATION	COMPENSATIONS		CONTRIBUTIONS	
	Money	Others	Necessities	Enjoyments
Carpenter	1933 San Francisco \$36.00 per week	40-hour week Leisure time	Our shelter	Places of amuse- ment
Silver- smith				

CHAPTER IX

A PREFACE TO THE PROFESSIONS

No profit grows where is no pleasure ta'en ;
In brief, sir, study what you most affect. — SHAKESPEARE

A FORK IN THE ROAD

If in your journey through life you were never puzzled about the road to take, it would be no adventure at all. As you proceed in your study of the hundreds of possibilities in occupations, either you will be discouraged or you will be thrilled. Do not allow yourself to be discouraged, for if you make the effort you will finally find your place. Even though there are many paths, you will come to certain big forks in the road where the choice is between only two directions. One of the first decisions you must make will be between the professional road and the business road.

A distinction. One definition of a profession is "a vocation, if not purely commercial, mechanical, agricultural, or the like, to which one devotes oneself." You have studied about these others in the chapters on *Commerce*, *Manufacturing*, and *Agriculture*. A profession is not like buying or selling, where success is measured chiefly by the amount of money made; it is not like a manufacturing or a building trade, which one may master and in which he may become skillful once for all; and it does not belong to the farming group, which you have learned is different from any other.

A rule of this adventure. One other difference between a business and a profession is that while the business man has some commodity to sell, the professional man is selling

his personal services. It is partly for this reason that a high-grade professional man must not advertise, while it is perfectly proper for a business man to do so. If the latter is to sell food, clothing, real estate, bonds, or furniture, one of his tasks is to let the public know what he has to sell. Then, he uses all sorts of schemes to persuade people to buy. He has certain "sales" days in which he lets things go for little or no profit — as a drawing card to get customers into his place of business. All of this we call advertising, and it is a part of the adventure for the business man. A professional man, on the other hand, must be content to gain his reputation by the good service that he gives. One person who has been helped will tell others, and so on. People belonging to certain professions often form societies which make standards for their professions. In most of them a person who advertises is not allowed membership. Do not choose a profession unless you are willing to live up to these standards.

Opportunity. In this country there are almost sixteen times as many people engaged in agriculture, manufacturing, transportation, commerce, and clerical work as there are in all the professions together. Only between three and four million of the over forty-eight million who are earning their living in some way are counted in the professions. In clerical work alone there are more than in all the professions together, and in manufacturing there are over four times as many. We are studying the professions so that those who may decide that they would like to join this rather small group of workers may realize the struggles that they will have to face, and so that the larger group who do not join them may appreciate the difficulties and accomplishments of the professional workers. Getting ready for the professions will take more time than for other occupations. In many of them one is obliged to pass an examination for a license from the state before he is allowed to start his work. As a rule, he must have a certain number of years of training before he

may try the examinations. Many a young person has a general idea that he would like to be a doctor, a lawyer, a nurse, or a teacher, but has no idea of what is required of him



Underwood & Underwood

Stonecutters are at work here on figures of the Apostles. This is the beautifully carved entrance of a church in New York City.

in order to become one of these. The welfare of the community depends a good deal upon the work of the men and women in these professions. If these were allowed to go ahead without sufficient preparation, they might be clever

enough to make money for themselves, but the community would suffer.

The layman. People who belong to a profession speak of those who do not belong as *laymen*. Thus, from the doctor's point of view, lawyers, plumbers, clerks are all laymen; while to the lawyer, doctors are themselves laymen. Now every professional person has a large amount of knowledge concerning his own work that no layman can possibly have. How should you, then, as a layman feel towards the people in the professions? First, you should have respect for the best sort of people thus engaged. The "best," remember, must have had a long, hard course of preparation. This has probably taken will power and sacrifice. We shall not call them "best" either until they have proved through the years that they have real knowledge and skill in their work, and that they think more of their professional service than they do of merely making money.

Certain signs met on the way. When you see the names of people engaged in the professions, you will frequently notice certain letters written after them; as M.D., D.D.S., B.D., J.D., D.V.S., B.A., B.S., B.L., M.A., or Ph.D. These letters have been earned. When you have successfully completed your senior-high-school work, you will be given a diploma. A diploma representing four years of college work states that you have been given a bachelor's degree, which allows you to write after your name B.S., A.B., Ph.B., according to the line of work you have taken. Sometimes another year or two with specified requirements fulfilled will give a master's degree; while still harder and longer work may earn a doctor's degree. This last degree usually is given because the person receiving it has added something to the knowledge of the world. He has done research work. These last two degrees may be represented by the letters M.A. and Ph.D. Certain other letters show that the person has earned a title in a particular profession.

In our study of special professions we shall learn what degrees are required and by what letters they are represented.

QUESTIONS AND EXERCISES

1. On a page of your notebook draw a $6'' \times 8''$ oblong and divide it into two $3'' \times 8''$ divisions. In the first division write the names of ten professions. Draw a six-inch horizontal line under each one. On these lines in the second column write after each name a reason why it is called a profession.

2. On a page of your notebook draw a $6'' \times 8''$ rectangle divided into two columns; the one at the left $1\frac{1}{2}'' \times 8''$. Find out about ten sets of letters that people might have the right to write after their names. Put the letters in one column, headed *Abbreviations*, and in the second column place the explanation of their meaning.

3. Draw a diagram showing the fork in the road when you come to choose between a business and a profession, another fork when you choose one profession, and still another when you choose one specialty in the profession.

4. A doctor charges you three dollars for advice which consumes about ten minutes of his time. A stenographer earns about the same amount for a whole day's work. Do you think this difference in pay is fair? Give as many reasons as you can for your opinions.

5. Explain the difference between M.D., LL.D., and Ph.D. See dictionary under *doctor* and under *degree*.

CHAPTER X

ENGINEERING

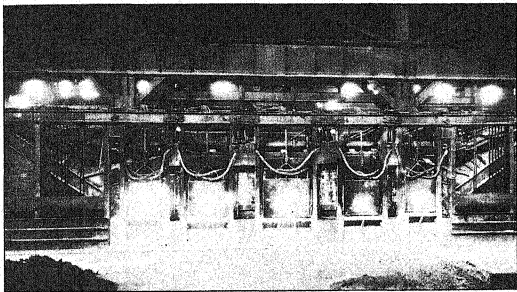
In but few of its greatest works does the personality of the real creator reach the ears of the world. — HERBERT HOOVER

"I should like to be an engineer," said John. "I am sure I can succeed, for I have spent hours watching the work on that steel building that is going up on Main Street. Those engineers are fine! I could throw those rivets."

Like many boys, John had not learned the difference between the skilled workman and the engineer. The engineer plans the machinery, the steel structures, the engines, and the bridges. Often he supervises the carrying out of his plans. The highly skilled workman is as necessary for the completion of these works as the engineer himself. You must know, however, that a highly skilled mechanic is not a mechanical engineer, a clever electrician is not an electrical engineer, and an expert carpenter is not a civil engineer. One boy who decided to become an electrical engineer completed his high-school education before he realized that he had prepared himself to be not an engineer but an electrician.

Engineers and helpers. A person who observes the results of engineering rarely sees the real engineer. The men whom he sees are probably the helpers. If, for instance, you go to Gary, Indiana, you may see being shipped from that place some of the products of the great steel industry. Engineers are responsible for these products. If you ask the

steps that lead to this production, you will learn that far away on Lake Superior there are great ore deposits ; that at some port in Michigan or Minnesota the iron ore is loaded on lake vessels ; that these carry their burdens over two lakes until they reach Gary at the southern extremity of Lake Michigan ; that here the iron ore is unloaded, is smelted in the blast furnaces, is changed into steel by the Bessemer or by the open-hearth process, and finally is brought into shape for



Courtesy of H. A. Brassert & Company

**OPEN-HEARTH FURNACE USED FOR THE MANUFACTURE OF
STEEL FROM MOLTEN OR COLD PIG IRON AND SCRAP**

making machinery, girders, rails, and many other products that are necessary for the final results of engineering.

Inside you will see great wheels revolving, steam shovels working, gas engines operating, as if they had been set in motion by some magic force. To be sure, men are at hand examining this machine and that, stopping some and starting others, feeding the furnaces, and applying oil here and there. These are the skilled and unskilled workmen. They are, in a sense, the engineer's helpers. If it were not for them, his work would count for nothing. Yet you might watch their work for many days without seeing a real engineer.

What is an engineer? One engineer gave the following definition of his profession: "Engineering is the art of directing the great sources of power in nature for the use and convenience of man." Coal, oil, gas, water, and electricity are great sources of power in nature. Engineers have directed these sources of power for the production of steel, the making of machinery, and the working of this machinery, so that today almost everything that we use and that adds to our convenience and comfort is a result of the engineer's knowledge and skill. Through his intelligence, his long training, and hard work, he is able to plan the heavy mining machinery, the railroad engines and trucks that bring us oil, and the dynamos that give us current for light, heat, and power. Furthermore, the engineer has discovered that water, another source of power, is often wasted and not directed for the use and convenience of man, and so in many places, by means of dams, he has created great reservoirs. Allowing this water to fall over the dam generates electricity by which machinery is operated, and cities even at a distance are lighted. He has planned irrigation ditches in order that the water stored in these reservoirs may be turned into them when needed, thus making production possible on land that was a barren waste. Is this not directing the power in nature for the use and convenience of mankind? It is no wonder that boys are impressed with the work of the engineer. There is a great difference between him and the skilled workmen who read the blueprints and carry out his plans.

QUESTIONS AND EXERCISES

1. What do you think ex-President Hoover meant by the words quoted at the beginning of this discussion?
2. On a page of your notebook draw a 6" \times 9" diagram like the one shown on page 173 and fill in the blanks.

ENGINEERING PROJECTS NOW UNDER WAY

NAME	LOCATION
1.	
2.	
3.	
4.	
5.	

3. Ask five boys and five girls, each younger than you and not in a vocations class, what an engineer is. Write down the definitions that they give. How many had the right idea?

4. Think of all the different types of workmen that must help from the time the iron is taken from the mines in Michigan to the time the steel ingots are shipped from the mills in Gary. Make a list of as many as you can.

5. Do you think of any sources of power in nature that were not mentioned in this section?

6. Explain how the engineer and the pattern maker are dependent upon each other.

THE DEVELOPMENT OF ENGINEERING

Some products of the engineer have been in the world since the earliest days of recorded history, and yet we have no record of the engineers who planned them nor of their methods of working. These engineers knew how to use some of the sources of power in nature, for they built the pyramids in Egypt, and they dug canals and tunnels which are still a marvel to the world. Yet since the modern discoveries of the use of steam and electricity as sources of power have been made, the work of the engineer has grown more rapidly than in all the thousands of years of previous history.

Very early times. You have learned something of what the engineer has done for the farmer. In earliest times men worked not with tools or other implements but with their hands. Then very gradually they learned to use some of the power that nature had in store for them. There came a time when man first thought of using a pointed stick to dig up certain kinds of food. Later, he used a two-pointed stick, and finally someone thought of fastening a sharp piece of wood or stone to the end of this so that he might dig more easily. Thus he made for himself a sort of hoe. Men thought of more and more devices until they had constructed a plow with the share, a handle, and a pole for drawing.

Egyptian engineers. The Egyptians did wonderful things in engineering. They learned to control the river Nile so that moisture could be brought to the soil after the rains had stopped. We have already said that their pyramids are a marvel to the world. Men do not yet know how the Egyptians lifted those immense blocks of stone in order to build the tombs for their kings. Discoveries are still being made that show us they must have used sources of power other than the muscles of men.

Roman engineers. Later, to help their armies in marching, the Romans built bridges and roads. They constructed their famous Colosseum and the buildings of the Roman Forum. They built aqueducts which carried water great distances. But the barbarians coming from the North and the East took possession of the Roman Empire. Though men had learned to direct certain forces of nature, these strangers knew no better than to destroy much that had been gained.

Medieval engineers. However, new needs for the engineer arose. You have learned how it became necessary for men in all parts of Europe to build strong houses and even castles to protect themselves against the hordes that kept sweeping over their land. It took someone with an engineer-

ing skill to plan these great towers and battlements. Engineers, also, were thinking out plans for mighty cathedrals of stone. They developed something beautiful and delicate as lace, and yet strong enough to endure for centuries. These cathedrals often took a hundred years in the building. They did not spring up in a season as do our modern triumphs of architecture.

Modern engineers. Then came the inventions that led to the Industrial Revolution. New inventions are constantly appearing. Even in your lifetime there have come marvelous developments in radio, air-conditioning, and airplanes. It is no wonder that the accomplishments of engineers fascinate a fourteen-year-old boy. If he becomes an engineer, he experiments with some of the wonders of the universe.

QUESTIONS AND EXERCISES

1. Find three pictures of cathedrals that were built in Europe during the Middle Ages. Look up the meaning of "flying buttress." Can you find an example in one of your pictures? Explain its use.

2. On a page of your notebook draw a 3" \times 10" oblong and copy on it the items given on the small oblong below. Write in the *Prehistoric Period* space the three most important inventions of that period that you can. Then write in two for the *Historic Period*. The *Prehistoric Period* is of uncertain length. It may have been 500,000 years long, and it may have been over a million years in length.

3000 B.C.

1 A.D.

1936

Prehistoric Period (?-3000 B.C.)		Historic Period (3000 B.C.-1936 A.D.)	
		Recorded history begins	Birth of Christ
1.	1.		
2.			
3.	2.		

3. On the same page draw another 3" \times 10" oblong as below:

3000 200 B.C.-1 A.D. 476 1453 1936

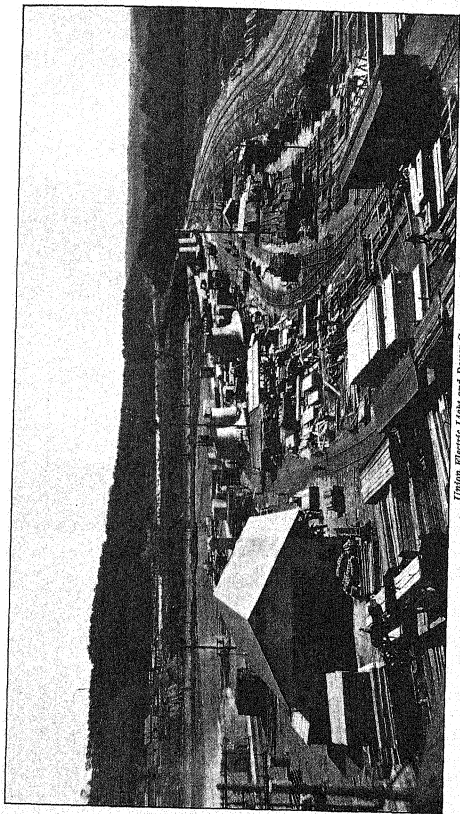
Ancient Oriental Period (3000 B.C.-200 B.C.)	Classical Period (200 B.C.-476 A.D.) Birth of Christ	Middle Ages (476-1453) Fall of Rome	Modern Age (1453-1936) Fall of Constantinople
1.	1.	1.	1.
2.	2.		2.
3.	3.		3.
4.	4.	2.	4.
	5.		

In the part of the above chart labeled *Ancient Oriental*, write or print four engineering works of the Egyptians or other eastern people of that period. In the *Classical Period* write the names of five works for which the Romans or Greeks were noted. In the *Middle Ages* write in two accomplishments. For the *Modern* fill in the space with as many as you can.

5. Report to the class the story of San Xavier cathedral near Tucson in Arizona (the White Dove of the Desert).

THE KINDS OF ENGINEERS

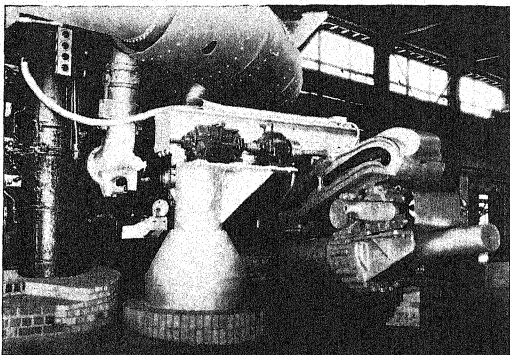
In your history you have learned that George Washington was a civil engineer. In the early days in America, that was the only kind of engineering that was necessary, for houses were small and could be built by owners or at most by carpenters; there was very little complicated machinery to be planned; and no one knew that electricity could be used as a power to help men. The civil engineer was chiefly a surveyor who measured lands and marked boundaries. Today we hear of civil, electrical, mechanical, construction, radio, hydraulic, sanitary, air-conditioning, aeronautic,



The carpenter shop and form yard of a large hydroelectric project are shown here. The concrete forms are built in sections in this yard and then moved to where they will be used. In the background are several large draft-tube forms to be used in making concrete discharge tubes for the water turbines.

highway, mining, and countless other types of engineers. With every new discovery, new engineers have been needed to develop the inventions that have been made as a result, and to insure their safe operation. We shall see how this has made different classes of engineers.

The civil engineer. The civil engineer is still a man of importance. He got his name, not from the nature of his



Courtesy of H. A. Brassert & Company

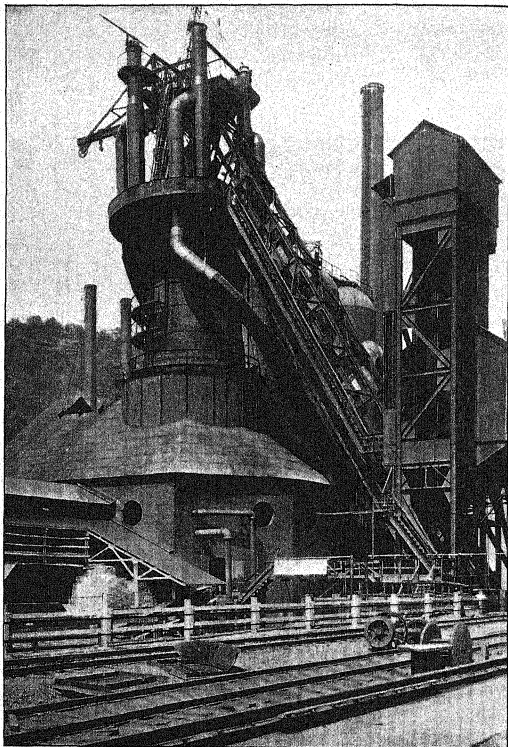
MOTOR-OPERATED MUD GUN USED FOR PLUGGING UP THE TAP HOLE OF A BLAST FURNACE

occupation, but from the fact that he worked for the civil rather than for the military branch of the government. He still surveys land and makes maps. He has much work with the United States Government. When canals are to be constructed, highways to be built, or railways to be laid, he is called upon. The civil engineer has learned how to straighten out a curve in a river, how to plan sea walls to protect cities from tidal waves, how to build dams for the irrigation of dry lands, how to construct bridges, and how to

do the figuring for our great steel skyscrapers. He is hired by cities for bringing water and disposing of wastes. Much of the work he does is necessary in connection with the other occupations. Highway engineering has grown because of the invention of the automobile, which is connected with manufacturing and commerce. Building dams for irrigation has grown because of the extension of farming or agriculture. When his work is with the erection of buildings, he is called a construction engineer, and as such he plans for contractors, carpenters, and all the workmen in the building trades.

The mechanical engineer. Ever since the Industrial Revolution, the mechanical engineer has been important. His chief work is the designing of machinery. A person may invent and patent a new article, but though he may have his plans and his models, it often happens that the article cannot be made without a new type of machine. The inventor is dependent upon the mechanical engineer to plan either a new machine or a new part for an old one, so that the article may be manufactured. The builder may construct a house, but the mechanical engineer is needed to design the heating system. It is he who plans gas and electric-light plants. Engines and pumps run by steam, gas, or oil are also of his designing. Often he seems to create something entirely new. A new type of gas engine is needed. The engineer sees an image of this in his mind ; he draws the design ; he supervises the making of the machine and its working after it is made. Our machine age would not exist without him.

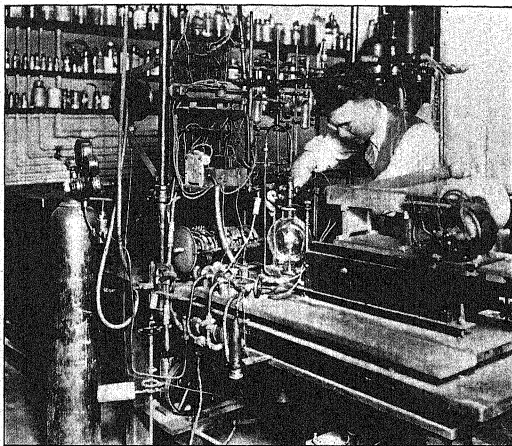
The electrical engineer. Until the discovery that electricity could be made to work for the benefit of mankind, there was no such profession as that of electrical engineer. He invents, designs, and is responsible for the manufacture of all the electrical machines and contrivances that are used in the world today. Is your mother's work made easier with an electric washing machine, an electric stove, or a vacuum cleaner? You should thank the electrical engineer. The



Courtesy of H. A. Brassert & Company

**BLAST FURNACE USED FOR THE MANUFACTURE OF PIG IRON
FROM IRON ORE, COKE, AND LIMESTONE**

telegraph, telephone, radio, and electric streetcar all require the work of the electrical engineer. The mechanical engineer designs engines and machinery of all kinds. When motors and generators are parts of this machinery, the mechanical and electrical engineer work together.



Underwood & Underwood

Much of the work of chemical engineers is laboratory testing. Here is a man finding the pressure produced by an explosion of soap dust.

The chemical engineer. You have not yet gone far enough in school to know what the science of chemistry is. It has to do with the composition of matter. The chemist analyzes materials to find of what elements they are made. He tells us what elements combine to make water, what is in the soil, in steel, in wood, and so on. He also shows how the properties of things are changed by the addition of a substance, or

by changing the proportions, or by applying heat or cold. The chemical engineer designs machinery that is used to change matter chemically, that is, to change it so that it is really a different material. For instance, gasoline as well as vaseline, kerosene, and various products are all made from crude petroleum. The petroleum goes through a process of distillation which induces several kinds of chemical changes, each one of which results in a different product. The chemical engineer designs the machinery, and figures out the exact amount of heat needed. The chemical engineer must understand not only chemistry but also mechanical engineering.

The mining engineer. The metal industries are dependent upon the mining engineer for their raw material. He must understand thoroughly the construction of the earth's crust. When he finds deposits of metallic ore rich and large and extensive enough to pay the owner to develop the mine, he plans and directs the work. He uses machinery and power wherever he can to reduce the cost. This requires him to have, in addition to his knowledge of geology and mining methods, much of the same knowledge of machinery and electricity that the mechanical and the electrical engineers have. Besides this the mining engineer must have a thorough knowledge of chemistry and metallurgy, for he must also direct the reduction and smelting of the ores.

The directing engineer. In engineering projects the highest of all positions is that of chief engineer, such as the position of Mr. Goethals in the building of the Panama Canal. The chief executive in a factory, in a power plant, or in building should be an engineer. Someone must direct the work of the men, skilled and unskilled. In a factory concerned with the manufacture of engineering products, most of the supervisors or foremen are engineers. They are also needed as managers of the sales and service departments. A capable engineer may take his place in the world as a

consulting engineer. By carrying responsibilities he has developed such good judgment about engineering problems that other engineers consult him as doctors do an experienced specialist.

The assisting engineer. In all kinds of engineering, whether civil, mechanical, electrical, chemical, mining, or any other, engineers are needed to do research work, to design, or to decide on the manner of making the product. Engineers in high positions need many assistants. One may have the idea of a new kind of machinery. A group of assistants may do the actual figuring to find the measurements of the parts of this machine. Draftsmen (who may themselves be engineers) are engaged in carefully drawing the plans for the blueprints that are to guide the skilled workmen. All of these are important because each man is playing his part in this big field.

QUESTIONS AND EXERCISES

1. Name as many tunnels, dams, and bridges as you can.

2. The sanitary engineer is one type of civil engineer. He has to do with the public health. Look up the departments of work in the government of some large city. Now tell which of these departments needs the help of the civil engineer and in what way.

3. One type of mechanical engineer is the safety engineer. Tell what you think he does.

4. Choose one kind of engineer and gather all the information you can about him. Write a paper telling in what sort of place he works, and just what he has to do from morning until night. Is he ever required to work during the night? Is he called upon as is a doctor?

5. Make a diagram with two columns. Label one "The Skilled Mechanic," the other "The Engineer." In each column write as many qualities as you can that you think

the person named should have. Try to show the difference between a highly skilled workman and an engineer.

6. Choose one kind of engineering and make a diagram to show the various grades of work from the chief engineer down. These grades must include men who help to carry out the work as well as engineers themselves. Show by the size of the diagram in which grades there are the most opportunities.

7. Look up and report on the lives and work of the following engineers: George W. Goethals, John Hays Hammond, Herbert Hoover, Harris J. Ryan.

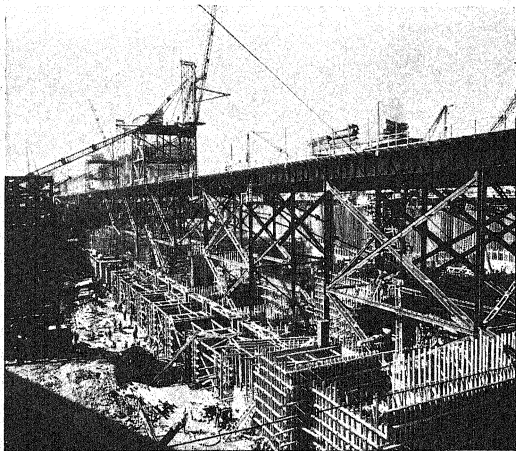
THE ENGINEER AND HIS COMPENSATIONS

The man. One of our large corporations that employs and trains many engineers tells us very definitely just what kind of boys the company likes to have for beginning positions. Such boys should have mechanical ability; they should be much interested in electricity and magnetism; they should have patience to work thoroughly and neatly to get the best results; they should have physical strength to do the heavy work that comes before one reaches a high place in engineering. This organization wants boys with mental ability and prefers those who like to study.

One of our best engineering schools says that a young man who intends to be an engineer should like mathematics and science. He should be interested not only in knowing how a machine works, but also in knowing why it works, for that is the business of an engineer. So whether he is to work with machinery, or buildings, or powerhouses, or mines, he must be curious to know the why of everything. Second, he must have a desire to create things, and must see the finished bridge or engine in his mind before he draws the plans on paper. Third, he must be able to co-operate or to work with others. If you would like to be an engineer, ask yourself whether you have these qualities. The main

thing, however, is that after studying about the work of the engineer, you should feel sure that that is the work you would most enjoy.

Satisfactions. Everyone wants work that will bring to him satisfaction besides the money that he may earn.



Union Electric Light and Power Company. Courtesy of Stone & Webster Engineering Corporation

In building a large hydroelectric station a temporary steel bridge is constructed to be used for the handling and placing of materials. In the foreground are the wooden forms for concrete, and in the background is the completed structure. Temporary dams have been built at the extreme right and left to keep the water out until the permanent dam is completed.

Everyone is not satisfied with the same thing, but there are two conditions that cannot fail to bring contentment in work. One is the feeling that one is doing the work for which one has skill and has developed the technique, and in which one can see some good result. A great American engineer

said that when he undertook an important task, he felt that he was working on principles "based upon the ever constant ordinances of God Himself." What did he mean? That the laws of nature upon which the engineer bases his work are always the same under the same conditions. He may be absolutely certain that they will not fail. The other is that the result of his work is for the benefit of mankind. Some men have made reputations on work that did more harm than good, and even in engineering this is sometimes the case. The engineer who is responsible for great guns or dreadful gases that wipe out hundreds of human lives may often wonder whether, after all, his work is helpful. On the other hand, think of the satisfaction to the man who has helped to make life more comfortable and happy for thousands of human beings. A dam which results in lighting whole cities, or in watering dry lands so that many may be fed must make the planner feel that his work is worth while. Only a few engineers make a great deal of money and fewer still make a great reputation, but their satisfaction comes from such other results.

Mr. John Hays Hammond, the noted mining engineer, once said that very little newspaper space is given to the engineer, and that while the public enjoys the results of his work it seldom knows who is responsible for it. The quotation from another eminent mining engineer, ex-President Hoover, at the beginning of this chapter says about the same thing.

On the other hand, a well-trained engineer may be fairly sure of making a living and enough to lay by something for his old age. Statistics show that a large percentage of graduates from engineering schools go into engineering work and stay there year after year and that their incomes constantly increase. An engineer can scarcely expect to become an extremely wealthy man, and since he is not sure of developing a great reputation, he chooses engineering as an occupation because he feels he has the ability and fortitude

to follow it and also because he feels sure he will be happy in it.

Women in engineering. One seldom thinks of a woman as an engineer. Yet 113 women are listed in the United States Census under that vocation. A number are engaged in drafting, and you read in the last chapter that many are responsible for inventions of various kinds. Still more are in architecture, a field closely related to engineering.

A portion of the poem by Percy MacKaye in praise of Goethals, "The Prophet Engineer," is reprinted here.

GOETHALS¹

A man went down to Panama
Where many a man had died
To slit the sliding mountains
And lift the eternal tide:
A man stood up in Panama,
And the mountains stood aside.

* * *

For a poet wrought in Panama
With a continent for his theme,
And he wrote with flood and fire
To forge a planet's dream,
And the derricks rang his dithyrambs
And his stanzas roared in steam.

* * *

Where old Balboa bent his gaze
He leads the liners through,
And the Horn that tossed Magellan
Bellows a far halloo,
For where the navies never sailed
Steamed Goethals and his crew;

¹From *Poems* by Percy MacKaye. By permission of the author and of The Macmillan Company, publishers.

So nevermore the tropic routes
Need poleward warp and veer,
But on through the Gates of Goethals
The steady keels shall steer,
Where the tribes of man are led toward peace
By the prophet engineer.

QUESTIONS AND EXERCISES

1. Look up the following terms and see if you can tell how they are connected with engineering: *hydraulic, metallurgy, maintenance, reinforced concrete, aqueducts, geodetic, surveying, The United States Geodetic Survey, administrative, geology, reduction and extraction of ore.*

2. Try to find five pictures representing some article that has been improved that many times by discoveries or inventions. For instance, you might take the wheel. You could begin with a mere cross-section of a log, then look for pictures of primitive two-wheeled carts, then for later carriage wheels, and at last the newest kinds of automobile wheels. Then sketch or copy five pictures showing this development.

3. Tell what type of engineer is needed for each of the following: 1, *designing machinery for making paper out of wood pulp*; 2, *designing an engine for an automobile*; 3, *designing machinery for work in a copper mine*; 4, *electrifying a railroad*; 5, *building a canal*; 6, *experimenting to find a way to improve the web printing press*; 7, *planning the process of manufacturing of the new automatic telephone*; 8, *directing the work of skilled and unskilled workmen in building a dam*; 9, *managing the sales of corn products*; 10, *acting as chief executive for a mine in Nevada.*

4. If you know any engineer personally, ask him to grant you an interview. Find out whether his kind of engineering may be learned by a person actually at work. How many hours a day does one such spend in study? How long before he may be called an engineer? What kind of chance does he have in comparison with a college-trained man?

CHAPTER XI

PROFESSIONS: LAW, SOCIAL SERVICE, AND RELIGION

THE LAWYER

Law is the science in which the greatest powers of understanding are applied to the greatest number of facts. — DR. SAMUEL JOHNSON

Is he needed? In this country we are better supplied with lawyers than with either doctors or dentists. The census report of the United States Department of Commerce showed that, in 1930, we had 160,605 lawyers and judges. At that time our population was 122,775,046. Do we need one lawyer for every 765 people? You have learned something of the rules of the game and of how in many turns of your career you will have to take account of the rules or laws laid down by your local, state, or national government. It is because it is impossible for any one of us to understand our obligations and privileges under these laws that from time to time we need the advice of a lawyer.

Laws confusing to the layman. It is not possible always to know what, according to the law, one may or may not do, or what one has a right to demand from others. A man buys a house. He and the seller must both sign certain papers, which contain so many clauses that neither one nor the other could possibly know what he had agreed to. A woman is injured by an automobile. Under what circumstances may she collect damages for her accident? In such cases both need the advice of lawyers. Because of the many regulations of our government under the new order, there is likely to be still more work for those in the legal profession.

Kind of person. The lawyer must be able to concentrate, to think clearly, and to express his thought in a few words. He must not be easily persuaded but must see clearly any weakness in an argument. Much of his work might seem like drudgery to you, for he often spends many hours hunting through books of laws and other records to see what applies

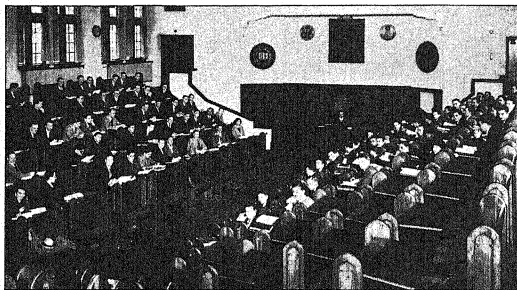


Photo by John D. Jones. Courtesy of Northwestern University

Here a judge is addressing a group of students in a college of law. Their hall is an exact reproduction on a smaller scale of the British House of Commons.

to the case on which he is working. Sometimes he must delve into the findings of scientists, economists, or other specialists. A person who wishes to become a lawyer should have a high intelligence quotient.

What is required? Preparation for the law, like that for other professions, requires several years of study after high school. For entrance to most law schools, you must have two years of general college training, while for many you must have a full four-year college course. The law course itself is usually three years. Then the bar examination must be taken. The amount of training required before taking this examination varies in the different states. If the young lawyer passes this examination, he is admitted

to the bar and may practice law. There is usually an impressive ceremony at the state capital; he takes an oath of loyalty; and is ready to fight with his mental strength as the knights of old did with their physical strength. But in addition to these absolute requirements, he should try to get as much general education as possible. President



Photo by Burke & Koretke. Courtesy of United Charities of Chicago

A family that needs legal advice but has no money with which to pay for it may come to an organized charity for help. The lawyer in this picture is employed by the organization and is here assisting a mother with her problems.

John Adams wrote to his son Thomas that if he wanted to be a lawyer, he should study history, science, and literature.

A young person usually starts as a clerk in a law firm. It is a long pull before he gets a practice of his own. People look for a lawyer who has made his reputation. If, however, a man or woman does succeed, there are many fine chances ahead. When a lawyer pleads cases in court, we say that he is at the bar. If he becomes a judge and presides at a

trial or decides cases in a non-jury trial, we say that he is on the bench. An independent lawyer is paid a fee by each person or client for whom he works. He may earn a good income if he is really superior. Many of the political positions are filled by lawyers. A change has come since your fathers were boys. Many lawyers who have special knowledge in the fields of real estate, bonds, patents, and corporations are now employed by some business and work on a salary basis.

QUESTIONS AND EXERCISES

1. Write a comparison of the qualities of character required by doctors and by lawyers. Include the five following points and any others you may wish to use: courage, patience, tact, understanding of people, ability to see all sides of a problem and get at the important point. Show how both the lawyer and the doctor need or need not make use of each quality. Give illustrations.

2. English lawyers in the Middle Ages often gathered in boarding clubs or inns. As a result England has a very interesting institution called *Inns of Court*. Appoint a member of your class to give a report on this subject. The facts may be found in a standard encyclopedia.

3. Define the following terms in their connection with lawyers: defendant, prosecuting attorney, acquittal, ordinance, brief, clientele, state's attorney. Why is the state's attorney not on the side of the defendant?

4. Ask three persons older than you to name a law that gives them protection in their daily life. A list of all the answers secured by the class may be placed on the blackboard. Select ten of these laws. Now on a page in your notebook draw an oblong as large as possible. Divide this lengthwise into two columns; make ten equal crosswise divisions. In the first column write the ten laws you have selected; in the second, tell how each law might add to the work of the lawyer. Thus:

LAWS	NEED OF LAWYER
1. In regard to inheritance	A lawyer must help to make a will.
2. Damages paid to people hurt in accidents	

5. In a daily newspaper, find the department in which questions about laws are asked and answered. After watching this column for a week, make a list of ten circumstances in which people might need a lawyer's advice.

6. Try to have an interview with a lawyer. Question him about the opportunities for a boy or girl in the legal profession. Ask where the lawyer is most needed now. To what may the young person who starts as a clerk in a law office look forward if he succeeds? Report your findings to the class.

THE SOCIAL-SERVICE WORKER

The gift without the giver is bare. — LOWELL

The social-service or welfare worker earns his living by helping persons or groups of persons who are unable to help themselves. He works with the maladjusted, those who have never been taught to fit themselves into their place in the world. There would not be quite so many of these if all young boys and girls could learn how to choose the right vocation. Then there are always people who through no fault of their own find themselves in need of help. Depressions are likely to hit every sort of person.

History. From ancient times we read of care being given to unfortunate people. In the Middle Ages this work was done by the church. The friars went around helping the poor. The monks and nuns did much for the needy. Hospitals and homes for unfortunate children were run by

the church. Later, the guilds helped their members, and after the Industrial Revolution employers helped their employees. Then as factories grew larger, owners became so absorbed in making profits that the struggle required most of their time and attention. They found that they must lower the cost of production and raise the price of the article they produced. One way to lower costs was to pay



Photo by Burke & Koretke. Courtesy of United Charities of Chicago

The social worker meets people in different degrees of need. It is her task to decide the kind of help to be given. This worker is getting a mother's account of her family's difficulties.

low wages, and low wages together with high prices caused suffering. Someone besides employers had to step in to help. Labor unions were organized and did much to make conditions better. Then gradually other groups were formed for the purpose of aiding poor and unfortunate people.

Varieties of work. In every city there are charity organizations for the purpose of helping families who cannot afford the necessities of life. The Salvation Army furnishes lodgings and meals at a very low price, and helps the un-

fortunate to help themselves. Settlement houses or community centers are usually located in the crowded parts of large cities. The activities of settlement workers range from hanging good pictures on the wall, furnishing reading rooms, and providing respectable dance halls for young people, to organizing classes and clubs. Probation officers, responsible for boys and girls who would otherwise be put into homes for delinquent youth, are doing social-service work. Hospitals employ social-service workers to investigate the needs of their free patients. Trained nurses often work for social-service organizations. They teach mothers how to feed and care for their babies. They become visiting nurses. The federal, state, and local governments employ many trained workers in their great task of relief for the unfortunate. Research work belongs also to this occupation, for facts must be learned before the right kind of help can be given. In Washington there are the Women's Bureau and the Children's Bureau constantly trying to find out what is true of the lives of unfortunate women and children. How many hours do women work in factories? What happens in their homes in the meantime? What kind of work is done by children? How much money does a family of six need to keep in good health with the right food, clothing, and shelter? Research workers hunt for the answer to such questions.

Workers and their training. A social-service worker should have four years of college training. Sociology and economics are studied, and training in case-work is given. Case-workers and case-aides have been important in all branches of social service. They interview the people who ask for aid. It is their duty to determine whether the case is genuine, and how much aid is needed. They must be tactful. It is hard enough for many people to ask for help — the investigator must not make it harder. On the other hand, he must have good judgment, for some applicants seek

aid when they are really able to support themselves. An important part of the college training is "field work" to give actual experience in talking with needy families. This does for the social worker what internship does for the doctor. The more cases that either one sees, the better judgment he can develop. Other workers are trained to direct activities on playgrounds and in settlements. Executives are trained to organize and direct the work of others, while in their offices they employ filing clerks and secretaries.

Opportunities. The opportunities for social service seem to be increasing, not in private agencies but in government service. The salaries have never been large. The reward comes from doing interesting and necessary work. If you are interested in making your lifework count in helping the unfortunate, you should study the requirements of both the public and private agencies in your state.

QUESTIONS AND EXERCISES

1. Make a diagram with five columns like the model on page 197. In the first column you find ten social-service agencies listed. Add two others that are found in your community. Fill in the spaces in the other columns.

2. Report on some settlement house such as Hull House in Chicago, the South End House in Boston, the Telegraph Hill Neighborhood Association in San Francisco, or University Settlement in New York City. Be ready to tell what workers are needed and their preparation. Do they receive pay for their work?

3. Have one member of the class write to Western Reserve University, Cleveland, Ohio, for a bulletin describing their plan of training for social-service work. Be sure to keep this for reference when you study the chapter, *Training for the Adventure*.

4. Does any social agency in your community offer legal aid to its clients?

SOCIAL-SERVICE AGENCIES	THE WORK THEY DO	REWARDS FINANCIAL AND OTHERWISE	KIND OF TRAINING	VALUE TO COM-MUNITY
1. United charities	Help poor families. Manage summer camps.			
2. Federal relief				
3. Salvation Army				
4. Settlement house				
5. Probation officers				
6. Social service in hospitals				
7. Infant Welfare Association				
8. Visiting nurses				
9. Women's Bureau at Washington				
10. Children's Bureau at Washington				
11.				
12.				

5. What is the difference between private and public social-service agencies? Find out in which there is likely to be more opportunity in the future.

THE RELIGIOUS LEADER

. . . In vital importance there is no work comparable to the . . . ministry. — JOHN R. MOTT.

In former times. From the earliest times people have done religious work. Men believed in gods or in spirits who had great power over the fortunes of human beings. Certain people in the tribe were supposed to stand between these gods and the rest of the people. It was their duty to find out what the gods wished, and to help men to gain their favor. Often the leaders were called priests. They were found in the temples where altars to the gods were built. Sometimes an animal was killed, its body cut open and laid upon an altar to be burned as a sacrifice to a god. As the priest watched the movements of the burning body, he thought he could tell the person who brought the animal what the will of the god was.

Different religions have developed in the world, many of which have derived their name from a great leader. Thus we have Confucianism in China from Confucius; Mohammedanism from the Arab, Mohammed; Buddhism from the East Indian Buddha; and Christianity from Jesus Christ who lived in Palestine. Judaism is named from a whole race of people, the Jews. In the Middle Ages the Christian religion had spread from Palestine to Europe and had become so strong that almost everyone living in Europe was called a Christian. A great many people were religious leaders. You have learned that working for the church was one of the chief occupations of that time. These workers were called the clergy and included not only priests, but also bishops, cardinals, and highest of all, the Pope. Since that time many religious sects have developed, but they all believe

in God and are trying through this belief to make a better world.

In modern times. The people today whose occupation it is to explain God to men are called priests, rabbis, ministers, rectors, pastors, or clergymen. In their sermons they try to make the people feel that it is religion that can make their lives most worth while, that it can give them courage to face what comes in this adventure of living. It is to the clergy that we are indebted for keeping people reminded of such standards as you will study about in Chapter XXII. The churches do much social-service work. Other people besides the ministers are often employed to help in this, but the minister is the chief executive officer in his parish. A preacher must be a natural leader and must be able to get along with every kind of person. Above all, do not decide on this occupation unless you feel sure that you have something to say that will help to make the world around you better, and unless you have the courage to stand for what you honestly believe to be right at any cost. Most churches require a definite preparation for their leaders. Usually this is a four-year college course plus two or three years of work at a seminary for the special training of ministers, but the preparation, like that of most professional workers, never ends. The best ministers spend at least four hours a day in hard study.

Opportunities. They tell us that the graduates of the best seminaries have a very good chance of getting a church. Their advancements are appointments to larger churches or perhaps to general church positions. Another kind of church work is that in foreign lands as preacher, teacher, doctor, or nurse. Such workers are called missionaries. The income except in large churches is small, but the reward comes from interest and satisfaction in the work.

Women have opportunities as pastors' helpers and as missionaries, and a very few themselves are pastors.

Y.M.C.A., Y.W.C.A., K. of C., Y.M.H.A. These letters stand for organizations all of which do much the same sort of work. They try to help young men and women in every possible way. The only distinction is that they are connected with different religious organizations. The Young Men's Christian Association and the Young Women's Christian Association grew up as aids to Protestant churches. The Knights of Columbus is connected with the Roman Catholic Church. The Young Men's Hebrew Association, as you can tell from the name, belongs to Judaism, or the Jewish religion. When we speak of the workers in these organizations, we shall understand that they may be in one or the other, according to whether they are Catholic, Protestant, or Jewish.

Some of their work. In many cities these organizations are like clubs for young people, often with large fine buildings. In smaller towns, they may have simply a few rooms. In a small place one or two people may do all the work, while in the cities are found a number of workers called secretaries. An athletic secretary has charge of the gymnasium and the swimming pool, and coaches the teams. The boys' or girls' secretary directs clubs, camps, and classes for the younger members. Some other divisions of the work are the bureau for rooming and boarding places or for employment, the associations for railroad men, and for soldiers and sailors. In the crowded factory districts of big cities, these organizations often maintain "centers" like the settlements we discussed under "welfare work." In colleges secretaries have charge of organizations for the students.

For this work you should first of all have a college education specializing in the courses that are given for social-service workers. Sometimes college graduates are taken as apprentices to learn the work on the job. Many try out their ability and at the same time get a little training by serving for a time without pay. These are called volunteer helpers.

Appreciation. In an important sense the professions that you have studied in this chapter are among those whose purpose is to bring assistance to the people who need it. If a person does not understand his duty or his privilege under the law, he seeks legal advice. If he cannot adjust himself to society, or obtain the necessities of life, he may ask



Courtesy of Chicago Boys' Club

Another part of the work of social-service organizations in a city is to see that boys and girls in needy families have vacations at camp. This group is eager to learn something about nature study.

for social advice. If he longs to find his place among the forces that are working to make the world better and to trust in a power bigger than himself, he will seek religious advice. The adventure of living is easier and may be richer and more satisfactory because we have these advisers to whom we may turn.

QUESTIONS AND EXERCISES

1. List the duties of a minister of your faith. Check those that may be performed by other agencies. For example, marriage may be simply a legal contract. Why do most people have a religious ceremony?

2. What are the compensations of a minister? Who is responsible for his financial support? Can he be sure of his salary?

3. The three so-called "learned professions" are those of the doctor, the lawyer, and the minister. Show how the work of a minister is similar to that of the doctor and of the lawyer.

4. Imagine yourself one of the following and write a day's diary of your experiences: (a) visiting nurse, (b) probation officer, (c) Salvation Army officer, (d) case-worker, (e) Y.M.C.A. employment secretary, (f) minister.

5. Test each profession in this chapter by the chart in Chapter II.

CHAPTER XII

PROFESSIONS: HEALTH AND EDUCATION

HEALTH

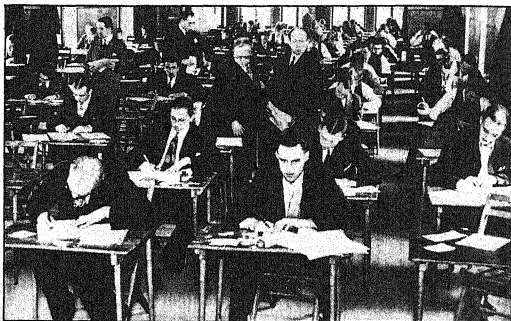
In nothing do men more nearly approach the gods than in giving health to men. — CICERO, *Pro Ligario*, XII

THE PHYSICIAN

Old ideas. We do not know of a time when people did not suffer from diseases and accident, and when they did not try to relieve and cure the trouble if possible. In early times, they believed that evil spirits brought the diseases, or even that good spirits sent them as a punishment. They thought that by going through certain strange performances they could please the spirits and so get them to cure the sufferers. Sometimes when the disease spread into a terrible plague, they even sacrificed human beings, thinking that in this way they could please their god and get his help. It was supposed that evil spirits lived in people who had spasms or convulsions. Various charms were used to drive these spirits out. In some places medicine men still try to do this by piercing the patient with red-hot needles. These strange beliefs of people are called superstitions.

Early remedies. But gradually people learned to use remedies that did really help. They found that certain herbs, leaves, or seeds brought certain results. Some of these gave a person a little more energy, others soothed him and relieved his pain. They found that with clay and leaves they could stop the flow of blood. If you have read Scott's *Ivanhoe*, you will remember that Rebecca knew many

of these things. There is no doubt that these methods often helped. The trouble was that people using them were not scientific. The scientific person asks the question, "Why?" In the olden days it was found that certain remedies worked, but no one knew why they worked. In cases where they did not work, they still did not know why, and so the medicine was given when it often did more harm than good.



P. & A. Photo

These medical students are taking examinations for internship. If they pass, they will have from one to two years' practical experience in a hospital.

The physician today. The foundation of the doctor's work today is science. He understands the human body; how it is built, and how it works normally. When disease attacks it, he uses his best knowledge to bring it back to health. Before there can be a cure, however, the doctor must recognize the disease. This we call making a diagnosis. A recent important trend in medicine is that of finding ways to prevent disease. In order to prevent and cure disease the physician needs a vast amount of scientific knowledge. It will therefore take him many years to get his preparation,

for, besides the time in school, he must spend at least one year as an intern in a hospital. Even after this he may not practice until, according to the rules of the game, he has passed an examination for a state license.

The young doctor usually begins with general practice, that is, he is ready to be called upon to treat any kind of ailment. After he has been in general practice for a time he is likely to decide upon a specialty, for the doctor's work today is divided almost as much as is that of the men in the factories. He may continue in medical care of patients or he may become a surgeon and do nothing but perform operations. A surgeon must develop manual skill — he must be more dexterous than the most highly skilled mechanic. If the doctor chooses a specialty, he will need more time for study. Few professions require a longer period of preparation than does that of the physician.

But the doctor needs something more than mere preparation. He rarely succeeds without a pleasing personality. Once a physician said, "It makes no difference whether a doctor is pleasant or not. The only point is, 'Does he know his business, and can he do his work?'" A physician may think this, but a patient prefers a doctor who is courteous, one who makes him feel that he is eager to help and that he knows how. In fact, many laymen can judge of a doctor's ability only by his manner. Also the doctor must have a keen sense of honesty and a sturdy conscience, for he is usually his own employer; he has what we call a private practice. Only his own standards control him. He has no one standing over him to check what he does. His income depends upon the number of his patients and their ability to pay.

The employed physician. Doctors may work for salaries, for example, as examining physicians for schools and colleges and for insurance companies. Almost every big corporation also employs doctors. In the army, the navy, on board the

ocean liners, and in institutions for the care of the unfortunate, there are always physicians employed. Many doctors find their place in *Public Health Service*, for either the national, the state, or the city government. The duty of this service or health board is to try to keep the people well. It works to prevent epidemics. No way is yet known by which certain diseases may be prevented, but science has found ways in the cases of many others. These latter are called "preventable diseases." Statistics show that in the last ten years there has been a twenty per cent decrease in such diseases. The *Public Health Service* has helped in this. It, in turn, depends upon the medical research worker. Research work opens up another field for the doctor who is interested in adding to the scientific knowledge of medicine.

Women physicians. In this profession women will have a much harder time than men, but many women have succeeded as physicians. They are often preferred for children and for other women. But a woman, in order to succeed, must be stronger and brighter than the average. Some medical schools will not accept women as students, and some hospitals will not accept them as interns. It is especially important for girls to block out their course of training definitely, before deciding to be doctors. In 1930 there were 11,825 women physicians and surgeons in the United States.

Distribution. The total number in the medical profession in 1930 was 158,803, making about one doctor for every 773 inhabitants. That is many more than are to be found in most European countries, but the trouble here is that they are not so located as to help the greatest number of people. We are told that 63 per cent of these are in cities of 5,000 or over, making one for every 541 people. Thus in places of less than 5,000 the average is only one doctor for every 1,020. In places of less than 2,500, there is only one for every 1,600.

THE TRAINED NURSE

Importance. There are in the United States more nurses than there are physicians and surgeons. Both groups are needed in about the same way. Whatever helps to improve the health of the people is important for the community. In some kinds of illness, it is said that the nurse's work is more important than the doctor's. Many a life has been saved



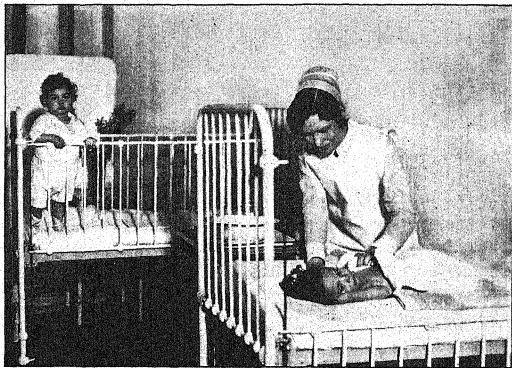
Courtesy of Cook County School of Nursing, Chicago

During a nurse's training course she must spend some of her time preparing lessons for class work. In the quiet of this library, with medical and reference books at hand, the nurse has a splendid chance to study.

by the work of nurses, many a sick person has become well, and many a child has been able to start life as a healthy person. There are many more women than men in this profession. Some men, however, do go into this work, perhaps as a stepping-stone to something else, perhaps to work in men's hospitals, or to care for men patients.

The nurse's training, usually three full years, is less expensive than that for any other profession. It is a sort of apprenticeship. In a hospital there are many patients to

be cared for, and a great deal of this care is given by the student nurse, so that she is learning by doing. Besides this she attends classes and must study. She works usually only eight hours a day, although those hours might be any eight in the twenty-four. No degree is given for a nurse's training. In some hospitals, however, which are near universities, a girl may spend about five years in all, part of



Courtesy of Cook County School of Nursing, Chicago

If you enjoy taking care of your little brother or sister, perhaps you would like working with the babies in a hospital as much as this nurse does.

the time in college and part in the hospital, and get a degree from the university when she finishes her training. Every hospital graduate takes a state examination in order that she may become a registered nurse. She is registered at the state capitol.

Opportunities. A nurse has many opportunities besides bedside nursing. Perhaps there is a nurse in your own school. Her hours and pay are more regular than those of a

bedside nurse. The school nurse is called on in case of accident and sickness of the school children ; she visits their homes when necessary, she helps to prevent the spread of contagious diseases, and she assists in examining all the children. Public-health nurses are hired by the cities to visit homes where their help is needed. Infant-welfare societies send nurses to teach mothers how to feed and care



Courtesy of Northwestern University

A group of sophomore dental students either proving that they have manual skill or trying hard to develop it.

for little children. Manufacturing plants and commercial houses often keep nurses to look after the health of the employees. Nurses may also find positions in institutions, such as homes for the blind, homes for the aged, or homes for destitute children.

THE DENTIST

Importance. It was estimated that there were about 71,055 dentists in the United States in 1930. It was long after people had learned that they needed the physician before they realized that the dentist is almost as important.

Bad teeth and gums often cause trouble in many parts of the body. Care of the teeth from early childhood will keep them in good condition for a much longer time, and will put off the day when artificial teeth may be necessary. A dentist can straighten crooked teeth and jaws and thus improve both the health and appearance of his patient. He requires the skill of the expert mechanic, but he also needs the ability to get along with people. He needs good judgment, too, and of course the knowledge that will come with his training, which may be four, five, or six years after high school. A dentist, like other professional men, is usually his own master. An allied line is that of the dental technician, who sometimes is employed in the private laboratory of a dentist and sometimes works for a dental supply company.

OTHER HEALTH WORKERS

Pharmacist. The druggist also helps in the health work in the community. He is both a business and a professional man. If he is to fill a doctor's prescriptions, he must attend a school of pharmacy and take a state examination for a license. He then may combine drugs for medicines. It would be dangerous to human life to allow him to do this if he had not had sufficient training. Not many years ago the pharmacist usually owned his own business. Now he is more likely to work for a salary in the prescription department of a chain drugstore. Go into one of these and you will see how many articles besides drugs they sell. It takes a business man to manage such a place, so if you become a pharmacist you may work for a business man, or you may manage your own drugstore if you can find a place where the competition is not too severe.

Laboratory technician. The laboratory technician does his part for the public health. A high-school graduate who has studied chemistry, physics, and biology could learn to do the work from the doctor in charge. In connection with

hospitals, with medical schools, and often with the offices of private physicians, there are laboratories in which tests are made and experiments tried. People who have learned in school to work in a laboratory can often get employment in one of these.

Instructor in occupational therapy.

Occupational therapy is a new help to health that is often used in hospitals and other institutions. Many people who are not strong in body or in mind can learn to do work with their hands. Not only can they earn money in this way, but also the very work often helps to make them well. A soldier in a veterans' hospital could not control the

muscles of his legs or feet. He was given work on a sewing machine stitching leather. He worked the machine with his feet. At first he could not even keep his feet on the treadles, but by working a little every day, he was finally able not only to make a bag or purse, but also to control his legs and feet in every way. His occupation had helped to cure him. Learning how to teach these things to sick people has become almost a profession in itself.



P. & A. Photo

This chemist is treating a tray of pears with gas in order to hasten the ripening process. It seems that a rival for sunshine is being found.

Physiotherapist. The physiotherapist assists a doctor in caring for cripples. He works with the orthopedic surgeon using electrical appliances or giving massage treatments.

QUESTIONS AND EXERCISES

1. Appoint a member of your class to give a report on the Indian medicine man. Compare his work with that of the physician.

2. In the classified telephone directory of your town or city are listed the names of doctors. Count them, then find the population of your town, and divide this latter figure by the number of doctors. The result will be the number of persons who are served by one doctor in your district. How does this compare with the average in the United States? Work out the same problem for dentists.

3. Look up in the dictionary the meanings and derivations of the following words: orthopedic, osteopath, surgeon, physician, diagnostician, dispensary, oculist, optician, optometrist.

4. May a pharmacist prescribe medicine for a sick person? Why?

5. Turn to page 168, Chapter IX. Choose the letters which each professional worker mentioned in this chapter is entitled to write after his name. For what words do the letters stand? How many years' work do they represent?

6. Give a talk on the compensations and disadvantages of some one of these health professions. Find additional information.

7. Why do many doctors study in Europe?

8. In what way does the Public Health Service help to prevent disease?

9. What is an hourly nurse?

10. Why is a private nurse paid more per day than a nurse in an institution?

11. Ask your dentist how a dental technician gets his training, and where he may find an opportunity to work.

EDUCATION

THE TEACHER

And gladly would he learn, and gladly teach. — CHAUCER

Three young girls, sisters, once declared that they might do this and they might do that, but one thing was certain, not one of them would ever teach. Probably they thought of the teacher pictured on comic valentines, an old maid, always telling other people what they should do, dressing without any style, and acting as if there were no joy in life. Later, the oldest of the three saw that teachers did often marry, that they wore good-looking clothes, and that they seemed to have many enjoyable times. So she took two years of teacher training after high school. But she had not realized how much mental ability and what a strong personality were needed. She soon found that she could not control the boys and girls in school. She found that teaching was not an easy job. The second girl enjoyed sports, and decided that the best way she could use these as a means of earning her living was to teach in a physical-training department. She entered college to prepare for physical education, but she would not sit down and study as a girl must do if she succeeds in hard university work. After one year in college she found herself working in a store. It is difficult to get a high-school teacher's position of any kind without a college degree, and for that one must pay the price of hard work. The third sister wished to be an artist, but was too impatient to build a good foundation. She wanted to paint pictures immediately. When she found this was impossible, she decided to teach little children and evidently thought that her graduation from a training school was all that was necessary. She held her first position only a few months. Not succeeding in her work made her realize that a teacher needs something more than a certificate showing her prepa-

ration. She set to work to make herself a really good teacher. She taught for the rest of the year without a cent of pay, she studied more in a summer school, and the next year got a good position where she did well. She alone of the three had found out the two mistakes they had all made in regard to the teaching profession. It is not, as they had thought at first, work for unattractive, dictatorial women who know nothing about being happy, and it is not, as they thought later, work that can be done without much effort simply because one has gone through a training school.

Importance. Teaching should be the most inspiring kind of work that there is. A democracy demands that children be trained to be good citizens. But this is not all. They need to get joy out of life by understanding the best books, the best music, the best art, and the best plays. They cannot enjoy these unless they have learned how. That is not all. They cannot do their work in the world unless they have studied the subjects that are the foundation of all work, and the special courses that prepare for their own vocation. And in regard to their work, to their enjoyment, to their citizenship, and above all to their character, they need to develop standards, and to know what is right, what is important, and what is best. The 1,062,615 teachers in the United States have an opportunity to help in this. In order to teach, one must study several years after high school.

Compensation. A young teacher begins with better pay per month than does a young person in a business office, but the pay is either for ten months or nine months, and the teacher, who is often expected to study in the summer vacation, cannot earn much in the remaining months. In most states there is a pension for teachers who have been in service for a certain number of years.

Probably few occupations can give the joy in work that teaching can to those who have the interest and ability. The material with which one works, instead of being wood

or stone, is a number of human beings. It is sure, then, always to be interesting and different, even though one teaches the same subject year after year. There is also the professional interest. The teacher, like the doctor, the lawyer, and the artist must keep pace with new methods in his profession. Then, too, he is interested in mastering his special subject: history, athletics, music, or whatever he may teach.

In one of our large cities, the girls celebrate every year what they call achievement week, the object, of course, being to show what girls and women can do and what they have accomplished. In a recent year, the celebration ended with an "Achievement Revue." One number on this program was the presentation at the "Court of Achievement" of twelve young women who were actively engaged in some profession in that city. They represented interesting occupations, but among them there was not one teacher. Perhaps that was because good teachers are not so rare as good artists and lawyers among women, but one wondered whether the girls realized that each musician, each scientist, each dentist and doctor and nurse owed much of her success not to one, but to many teachers.

THE LIBRARIAN

Librarians in the United States number between twenty-nine and thirty thousand, of whom over twenty-seven thousand are women. The most important executive positions in library work are held by men. Books have become necessary both for work and for recreation. Many people cannot buy books and could not use them at all if there were not libraries from which to borrow. Besides the universities, almost all professional schools have their own libraries and need librarians to care for them. In all big cities and most smaller places, the public library with its branches is found. Some of these branches are in public schools, some in stores,

and some in factories. Besides these there are often special libraries open to everyone. A few wealthy people employ librarians to care for especially valuable collections of books.

The librarian's daily life. In spite of the people coming and going, the librarian's life is rather quiet. As one librarian said, "I live most of the time in silence." She is surrounded by "Silence" signs. When she talks, it is in hushed tones. Besides this, if she is in the reading room, she must see that all the other people are quiet. In this way, her work is somewhat like the teacher's, except that the people are all of different ages, and the librarian is likely to meet new faces every day. She should be quick with her hands and extremely systematic and orderly in the way she handles materials. Besides keeping the room quiet and doing her work promptly, the librarian must be pleasant and helpful to all sorts of people.

Librarians, without special training, have started with clerical positions and have worked up, learning while at work. They often begin with such work as pasting labels, replacing returned books on the shelves, and so on. Many others have started in small libraries which cannot afford to pay a trained librarian. Of course, these must work for very low salaries and must learn the methods in whatever way they can. For a really good position, one should go to a library training school. For these, one is usually required to complete two years of college work before entering the library course.

THE SCIENTIFIC RESEARCH WORKER

Research is an organized effort to acquire new information. —
CLEMENTS

What he is. Occupations have changed greatly in recent years. Many of the changes have come because of *research workers*. You have learned that inventions were the cause of the Industrial Revolution. Perhaps you imagine a genius

seeing a vision of a steam engine, an airplane, or an electric light, and immediately sitting down, drawing his plans, and having a product made that shortly changes the world for many people. But great inventions have not come so suddenly. Most of them were possible because of the men who were willing to work year after year trying experiments and examining the way that nature works, adding just a little bit of knowledge to what men had known before, until perhaps one of them happened upon a great discovery or invention. Some discoveries have been most important in changing the lives of human beings. For example, in the year 1800, working in his laboratory in Italy, Alessandro Volta discovered *current electricity*. He found that he could produce a weak current in a wire. A little later, Ohm in Germany and Ampère in France, working in their laboratories, made discoveries that added a little more to the knowledge of the world about electricity. These three and other research workers discovered many fundamental truths, but it was more than seventy-five years later that, by applying the basic knowledge gained by their painstaking work, Edison invented the incandescent light.

Medical research. In medical research laboratories, men are working all the time to find the causes of diseases and methods of fighting them. Experiment after experiment is made, perhaps on white mice, perhaps on guinea pigs, and this often goes on for years before results are certain enough so that the discoveries may be tried on human beings. Over sixty years ago in France, Louis Pasteur discovered that tiny little plants called bacteria are the causes of many diseases. Since that time much has been learned about fighting these germs. If you want to be a "microbe hunter," you might find a place working for a salary in a research institute.

The old and the new way. In olden days when manufacturing was done by hand in houses or in small shops, ways of doing things were discovered by the craftsmen. When they

were found, the process was taught by the father to his sons; they in turn taught their sons, and so on for years, but the secret was not allowed to leak outside the family, or at most outside a small group. Thus, the glass blowers in the Italian towns tried by the use of chemicals in their furnaces to get certain colors. When they had learned the secret, they guarded it very carefully. In Harvard University today, there is a collection of glass flowers representing almost every species that grows on this continent.

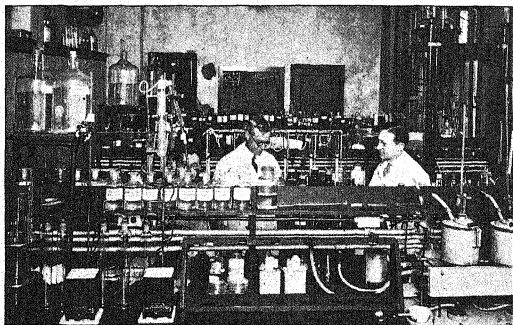


Photo by John D. Jones. Courtesy of Northwestern University

Doctors sometimes become research workers.

The secret of how these flowers are made is known by only one person in the world, a young man in Germany who learned from his father, who himself discovered the way of making them. This is an example of the old way of doing research work privately. In the new way, a group of people work in a laboratory, each on the task that is given him by a director. The information that he is able to discover may help in that laboratory, or it may help in another part of the world at a later time. He does not hide it. It is recorded

as a part of science for the use of scientists. One director of a research institute says that in scientific research everyone who succeeds in his laboratory work is sure to help his fellowmen.

QUESTIONS AND EXERCISES

1. When it is hard to get anything — from a diamond to a person's work — the price of it is high. Apply this general principle to the pay of teachers, both men and women.

2. Find out how the rules of the game affect teachers in your state.

3. Report on Horace Mann, Alice Freeman Palmer, Dean LeBaron Russell Briggs, Friedrich Froebel, Thomas Arnold of Rugby, Ella Flagg Young, or Charles William Eliot.

4. Ask your librarian about the *Reading with a Purpose* courses which are published by the American Library Association. How may these courses be of help to you? To which class of people do you think these booklets will be of the greatest help?

5. On a page of your notebook draw a 6" square. With vertical lines divide the square into four columns. Label the first column *City*, the second *Number of Books Circulated in 1930*, the third *Population in 1930*, the fourth *Average Number of Books per Person*. You may copy the first three columns as indicated below.

CITY	NUMBER OF BOOKS CIRCULATED IN 1930	POPULATION IN 1930	AVERAGE NUMBER OF BOOKS PER PERSON
Los Angeles . . .	9,682,305	1,238,048	
New York (Exclusive of Brooklyn and Queens) . .	11,103,019	3,290,916	
Chicago	14,534,393	3,376,438	

In the last space of the first column fill in the name of your town or city. Appoint a member of your class to secure from the librarian the number of books circulated in 1930. Now fill in the rest of the blanks yourself. Do you think that you take from your library as many books as the average person in Los Angeles, New York, or Chicago?

6. Find out all you can about Andrew Carnegie and tell how he has helped the reading public of the United States.

7. On a page of your notebook make two parallel vertical columns, $3'' \times 8''$. Label one of these columns *Occupations*. Label the other *Research Work*. Under these headings draw ten parallel horizontal lines across the columns about $\frac{1}{2}''$ apart. On each of these lines in the first column write the name of an occupation. Opposite each in the second column, mention some kind of research work that might be done for that occupation. For example:

OCCUPATIONS	RESEARCH WORK
1. Medicine	The search for the cause and cure of cancer
2. Manufacturing automobiles	

8. In a standard encyclopedia look up the following: Rockefeller Foundation, Julius Rosenwald Fund, Spelman Fund. These organizations are making a real effort to contribute something to our civilization by means of research. How may their activities affect you?

9. Do you know any boy or girl, man or woman in your neighborhood who, in a small way, is doing some research? Perhaps he calls it "just an experiment." If there is such a person, find out all you can about him and his work. Then write the account in story form.

CHAPTER XIII

PROFESSIONS: THE FINE ARTS

Sir, you have this gift, and a mighty one; see that you serve your nation faithfully with it. It is a greater trust than ships and armies;—Ships and armies you may replace if they are lost; but a great intellect, once abused, is a curse to the earth forever. —
RUSKIN

It seemed to his teachers that the boy could never become interested in his schoolwork. Between classes he was not in the study room, but one day the principal discovered him in a dark corner of the basement playing on a cornet. After that, when the boy disappeared, the principal would wander about until he heard the faint sounds of music. Another boy worried his teacher because he always seemed interested in something else during the Latin class. She was startled one day when he showed her his Latin book, the margins covered with drawings of Roman heroes, pieces of armor, temples, and even rivers and mountains. Another more unusual boy liked to sit up in his room at night writing descriptions of his schoolmates and trying his hand at exciting stories, meantime thinking how surprised his family would be after he had written a great novel and when they discovered what a genius he was. Each of these boys had talent in one of the fine arts. The fine arts include music, painting, sculpture, acting, architecture, and creative writing.

The genius. In one respect this group of occupations differs from all the others, for in most occupations a person of intelligence and determination can succeed, but you must be sure you are a genius before you give your life to creative work. Many a young person has had visions of

himself as an opera singer, a painter of portraits, or a great poet, only to find that his talent, compared with that necessary for success, is not more than a thimbleful. If you are sure that you have the genius, then start on the adventure, but be ready for a much longer starvation period than that of the lawyer or the doctor. The history of art shows plainly that most of the geniuses in these fields have been so eager to give their visions of beauty to the world that they have been willing to work hard for long hours, sacrificing many pleasures and comforts with little hope of reward. The artist will be able through his imagination to hear the music before it is composed or to see the picture before it is painted. He must love beauty for its own sake, because every art is an expression of beauty.

The talented person. Though you may not be a genius, you may have enough talent or skill to enable you to earn a living in interesting work connected with the arts.

In music. There is some music in almost everyone and if you develop your talent, you may be able to play in a band or orchestra, or to play a pipe organ in a church. There are many chances for a teacher to give private lessons, for which he may charge according to his reputation. There are positions in schools of music and for music teachers in public schools. Persons with an understanding of music are wanted in stores where musical instruments are sold and in factories where they are made.

In painting and drawing. If you are skilled in drawing and design, you might use your talent in commercial art. One form of this is in advertising. Such an artist draws pictures of hats, of dresses, of furniture, and of all the articles from fountain pens to houses which are represented on the advertising pages of the newspapers and magazines. Your sense of color and form might be valuable to you as an interior decorator. You might find enough individuals who would be willing to pay a small commission for advice

in the choice of draperies, rugs, or furniture; or you might find a salaried position in a furniture or department store in which the customers receive advice free of charge. Artists also use their talent in touching up pictures for photographers, in painting designs on hand-decorated fur-



Courtesy of Holabird and Root

Perhaps some of you have made wood or lineoleum cuts. After the artist has finished carving the woodcut, he can make prints from it.

niture, and in drawing initials for dishes and toilet sets. For fabrics, rugs, wallpaper, garments, for furniture, and for hats, in fact for every article that is manufactured, designs must be made by someone with artistic ability. It takes a real artist with a special talent to draw illustrations for books and magazines.

In writing. There is probably no art in which so many people are deceived as to their ability as in writing. But a person who has the ability to express himself well in good English might be able to earn a living in writing that is not creative. He might write the copy for advertisements, gather material for catalogues, or reports of various kinds. One with a talent but not a genius for writing might become



In this study, Goethe, the author of "Faust" and other masterpieces, did much of his writing. Perhaps the quiet simplicity of the room may have been a real inspiration to the writer.

a journalist or reporter. It is usually difficult to find a paying position on a newspaper or magazine, but high-grade and courageous journalists and editors are always needed.

In architecture. Architecture has been defined as the art of building beautifully. For this reason it belongs to the fine arts. It is also a profession, for the architect is usually an engineer. As in the other arts, there are few really creative architects, that is, those who create through their imagination something new and beautiful. A young person eager to be an architect often begins as a draftsman in an

architect's office. If he finally designs buildings, even without creative genius, he may make beautiful plans based upon the architecture that has been created in Greece, in Rome, in Western Europe, or in Colonial America.



Courtesy of Mr. Gilbert P. Hall, Architect, Holabird and Root, Chicago

You have learned that a draftsman draws the plan of every part of a machine or building before actual construction takes place. This architect is doing his own drafting of plans.

Meanwhile he will be inspired by the architects who are developing an American type.

Opportunities. Of the three talented boys mentioned in the first paragraph, the cornet player became the owner of a music store; the boy artist first did the finishing work

for a photographer, and finally became a decorator and joined one of the building trades. Because of his talent he was in demand by people who wished artistic walls and woodwork. The boy writer became well known as a creative artist. His stories are widely read in more than one country. The first boy used his talent in commercial

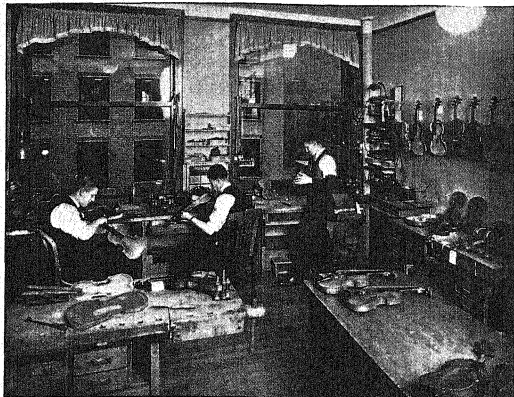


Photo by Kaufmann & Fabry

Violin makers must be more than skilled workmen. They must have a fine ear in order to make the instrument perfect in tone.

work, the second in a trade, and the third, who was in reality a genius, in one of the fine arts. Always there is more opportunity in an allied occupation than in producing original works of art. In most cases, if you suspect that you have talent, the best way is to begin practicing as early as possible. Entertain children by drawing pictures, keep writing and sending what you write to some paper or magazine, give pleasure to your group by playing the piano

or singing, try carving a piece of wood with your jackknife or modeling a figure from plasticine, take part in dramatic performances wherever possible, or draw a plan for your future home. Do these things on the side for no pay. You will find out where your interest and ability lie. If you have unusual talent, your friends will without fail let you know. But unless it is surely above the average, be content with artistic work, and with enjoying the great productions of the creative artists.

Training. Begin in high school to test your talents in the fine arts. You have an opportunity for this both in classwork and in school activities. By playing in the school orchestra, writing for the school paper, or joining a dramatic club, you may discover whether you have talent or not. If you plan to go to college after high school, you must find out what work is given in the art of your choice. Many excellent opportunities are offered. For work in the fine arts more than in any other occupation, there should be training with private teachers. If you are to be a creative artist, you will not be in a hurry to sell what you produce, but will be willing to work for years until you have accomplished something worth giving to the public. There are special schools of art, music, journalism — in these a talented person may be trained in commercial art, teaching public school music, and in writing for print.

Compensations. It is only the star of the stage, the opera, or the screen, or the painter of distinction, or perhaps the writer of a popular book who can hope to make what the world calls a success in the fine arts. Even artists with fine ideas beautifully expressed are not always recognized. Some of the greatest geniuses have lived and worked without material reward. The compensation is in doing the work for its own sake. Perhaps this fact is what made Kenyon Cox, artist and writer, write the following stanza:

Work thou for pleasure, paint or sing or carve
The thing thou lovest, though the body starve —
Who works for glory misses oft the goal,
Who works for money coins his very soul.
Work for the work's sake, then, and it may be
That these things will be added unto thee.¹

In the fine arts more than in any other group of occupations the greatest reward is in the joy of doing the work.

Appreciation. When you listen to the finest musical performers, do you realize the hours and hours of self-denial and hard grinding work that it has taken to give that pleasure of an hour? There is no end to a musician's practice. A woman who went to hear a fine singer remarked, "It was beautiful, but it makes me ache to think of the hours that she must spend to be able to do it." Perhaps you do not think of a painter's working so hard. A young portrait painter had regular hours for practicing her art. "If I do not tie myself down to this work," she said, "I lose the control of my muscles that I have gained, and that is something which many people do not realize that a painter must have. But I miss many of the pleasures that other girls have, and sometimes I grow discouraged."

The laymen. Those of you who are not artists have your part in helping to produce beautiful results. The more that people want the best music and pictures, beautiful statues and buildings, good books to read and good plays and motion pictures to see, the more opportunity there will be for those gifted in the arts to make their living with their work, and in turn the more will be created for you to enjoy. It is a part of general education to learn to appreciate the best in all the arts. Perhaps in your school there is a class in music appreciation or in art appreciation. Do not fail to take that work. Then the more lessons you

¹From *Old Masters and New* by Kenyon Cox. Reprinted by permission of Dodd, Mead & Company, Inc.

can take in any of the arts, the more you will realize how difficult it is to get results, and the more you will learn to recognize real beauty. Some writers tell us to forget the fine arts, because their purpose is for pleasure and that we have not time in the world today for mere pleasure. But one poet — and poets are the greatest artists among writers — said, "A thing of beauty is a joy forever." Who can



© Underwood & Underwood

A sculptor needs to be a careful observer of nature, must know form, and must be able to handle clay or wax in modeling. The sculptress here is putting the finishing touches on her work.

be more worth while than the people who are making "joys forever"?

What shall we say then? As Ruskin teaches, if you have this gift, you have a great responsibility — if you have some talent and skill but are not a genius, you may do much to make the world more beautiful, while at the same time there are many possibilities of earning a living.

Even though you have no talent, you may train yourself so that you can appreciate the work of the great masters.

QUESTIONS AND EXERCISES

1. Find pictures of Greek, of Gothic, of colonial, and of modern architecture. Which do you consider most beautiful? Why?

2. Tell which of the following you would rather be and why: interior decorator, music teacher, cub reporter, dress designer, wood carver, piano tuner, photographer, raconteur, commercial artist, architect's draftsman, cartoonist. How would you get your start?

3. Find out the contribution which each of the following has made to the fine arts.

Frank Lloyd Wright

John T. McCutcheon

Fritz Kreisler

Sir Philip Gibbs

Lorado Taft

Alfred Lunt

Lynn Fontanne

Alexander Woolcott

Lawrence Tibbett

Thornton Wilder

Consult *Who's Who in America* or any other source.

4. Look through your daily newspaper. Make a list of the different kinds of jobs represented in preparing the copy; for example, editorials, news, book reviews, and so forth. Describe the person who you think would succeed in each of the jobs.

5. Plan a fine-arts program for one session of your class. Have one member draw a cartoon if possible, another give a musical number, a third read an original short story. Let someone with another talent contribute to the program.

CHAPTER XIV

MISCELLANEOUS OCCUPATIONS, OR ODD ADVENTURES MET IN YOUR JOURNEY

If a man has good corn, or wood, or boards, or pigs to sell, or can make better chairs or knives, crucibles, or church organs, than anybody else, you will find a broad, hard-beaten road to his house, though it be in the woods. And if a man knows the law, people will find it out, though he live in a pine shanty, and resort to him. And if a man can pipe or sing, so as to wrap the prisoned soul in an elysium; or can scrape and convey into oils and ochers all the enchantments of spring or autumn; or can liberate or intoxicate all people who hear him with delicious songs and verses, 'tis certain that the secret cannot be kept; the first witness tells it to the second, and men go by fives and tens and fifties to his door. —
RALPH WALDO EMERSON

The big choices. You have now studied five groups of occupations: agriculture, commerce, manufacturing, the professions, and government service. These are the big choices. Each, from the very outset, requires quite a different preparation from that of the others. But there are still many occupations that we have not touched upon, though most of them may be found in one of these groups. One or another may attract you, and then you may search further to discover its possibilities. At least, if you use your imagination enough, and if you start early in your preparation, it seems that you need never be wholly without employment. Some one of these occupations might be selected as a second possibility, to be used when you cannot find work in the vocation that you would choose first.

HOME ECONOMICS

In most high schools and many colleges, courses in home economics are given. This training may lead to any one of a number of occupations besides homemaking. You are to study the possibilities and are to find in most of them opportunities for the boys as well as for the girls.

The homemaker. If one thing more than another may be learned in this study of twentieth-century occupations, it is that nothing is as it used to be. Formerly, a girl's mother trained her to become a homemaker. She taught her to cook and sew. Food materials were pretty sure to be good, for either they were produced on her father's own land or were secured from some neighbor. Families ran no risk of shoddy stuff for their clothing, for was not the cloth woven by hand, frequently at home, and was not even the very thread often spun by the women of the family?

Homes are very different today. Who has land enough on which to raise his own food? What house has space enough for a loom or even for a spinning wheel? We are fortunate if we have a tiny lawn or a bit of a garden behind the house. Hundreds of us are even crowded into apartments where we hardly have space for an extra broom or pan or even a book. But no matter where we live, it is still important to guard the standards of the home. The person most responsible for this is the woman who has undertaken to be a homemaker.

Feeding the family. Formerly when a girl had learned to prepare food for the table, her training as a cook was complete. Now she must learn more; for the research worker has discovered the very elements of which food materials are composed. The cook's training has become scientific. In the laboratory she learns how to analyze the foodstuff that she uses, and finds how much of protein, carbohydrate, fat, mineral, or vitamin, A, B, C, D, or E,

it contains. She learns how these elements affect the human body, how to combine them in food, and how much of each a growing child or an adult should eat. She must know, also, the effects of applying heat to these elements and the results of using various proportions. Thus she understands why a certain cake is a failure. The outcome is no longer left to luck.

Clothing the family. But even the nourishment of the body is not the whole of a housewife's duty. She must clothe her family, and unless she is trained, she is at the mercy of the sellers of goods. By learning to sew, she can not only clothe her family more economically, but also she can tell whether a ready-to-wear garment is well made. She knows how to test cloth, and can tell what substances the textile weaver has put into his "pure" wool or silk.

Managing the home. Many other things she learns in this home-economics training. She is to be an executive in her household. An executive must map out the necessary work and then plan when and by whom it is to be done. This American home must be kept clean, furnishings must be repaired, meals must be prepared and served, the family clothing must be kept in good condition, and above all the children must be trained. Besides being an executive, a woman should be a cash accountant in her home. On her depends the spending of the greater part of the family income for which she has learned how to make a budget. To be businesslike is not sufficient, however, for she should learn also the art of making her home beautiful. Her preparation, then, will include science and business management and art.

The worker outside the home. The change in home life is also responsible for more ways of earning a living outside the home; and in them, men, as well as women, have found their places. Most of these occupations have to do with food and clothing.

Food providers. The home-economics girl may manage a cafeteria, a tearoom, or a restaurant. However, only about one fifth of the restaurant and tearoom keepers in this country are women. The managers are usually men who often have women as assistants. At least one restaurant in a certain big city is run on a rather new idea. Here only



Courtesy of Fenton Kelsey Co., Advertising

Here a dietitian works as housewife on a large scale. The scene is in the kitchen of a popular restaurant.

college girls are hired. They come with the idea of getting training in the restaurant business. They learn to bake, to buy, to carve meat, and to manage the dining-room. It is expected that when they finish their course they may be able to start tearooms of their own.

The girl trained in home economics may be a dietitian in a hospital, or the housekeeping manager of a dormitory or an orphanage. She may be hired by a business man to teach people how to use a new electric stove, a particular kind of baking powder, or some new food material. Again,

you may see her in a shop of her own, handling candy, or canned or bakery goods. Because one woman gained a reputation for making better candy than anyone else, she has succeeded with a chain of candy shops. Another makes jellies and pickles. These are only two out of many kinds of shops that are possible.

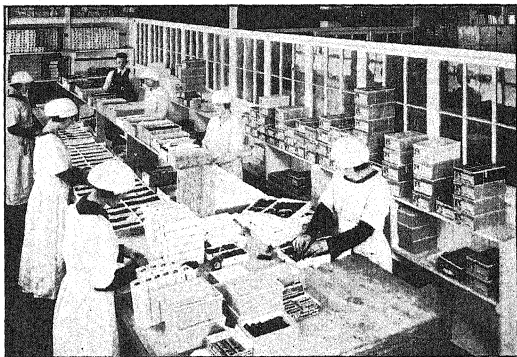


Photo by Kaufmann & Fabry

You would probably like the job of packing candy for a few hours, but to do it all day long, day after day, might become tiresome. Is there any future in this work?

Writers. Do you enjoy writing? Meat companies, canning firms, all sorts of food concerns may keep you busy with rather good pay preparing descriptions of their products and explaining the way in which they may be used. The Department of Agriculture is constantly issuing bulletins for the benefit of the farmer. The farmer's wife is not forgotten. Women trained in home economics are employed to prepare bulletins that will help the woman in the country in her homemaking problems.

Dressmakers. The girl skillful with her needle has opportunities, although in this factory age, with every paper full of advertisements of ready-made dresses, it might seem as if there was not much opportunity for private workers. But some people still prefer clothes made especially for themselves. A dressmaker may use one room of her home for business, and so keep her overhead expenses down. But her work is hard; she keeps at it many hours and must satisfy all sorts of fussy people. Sometimes she runs a larger shop and hires girls to work for her. A girl who wants to learn by working starts in as an apprentice at very low pay. But such good courses are given now in schools that it is far better for girls to stay there as long as they possibly can. The girl who sews may be a dressmaker; she may run a mending or fancy-work shop; she may specialize in other varieties of sewing such as making curtains, or couch covers; or she may become a fitter in a store that sells ready-to-wear garments.

Tailors. Boys may become tailors, for men, for women, or for both. There is still much individual work done outside of the factories. The furrier is much like the tailor. The same person often does both kinds of work. As is the case with the dressmakers, skillful work is what brings customers. The following account shows what one tailor did to get a start in a new town. First he found the milliner who had the best-looking display of hats in her window. He offered to make her a coat for a very low price, if, in case she was satisfied, she would agree to recommend him to her customers. She consented, but told him that if the people she sent to him complained, she would not send any more. The result was that with this beginning he built up a very good trade, without advertising. Satisfied customers sent their friends, and so his trade grew. Also, in stores where ready-made suits are sold, tailors are hired to adjust or

"alter" garments to fit the individual customer. Both men and women may work as designers for suits and dresses.

The teacher. Perhaps the most interesting possibility for the girl trained in domestic science is that of the teacher in this field. Because there are so many opportunities of earning a living, but most of all because the great majority of the girls will actually be homemakers themselves, schools from the grades through the graduate schools of the universities, besides many private institutions, are offering training in home economics. How many open doors there are for the girl with this preparation!

QUESTIONS AND EXERCISES

1. Look up the words *economics*, *science*, and *domestic* in the dictionary. Write out the definitions, and then in a sentence or two define a home-economics course.

2. *a.* Read the story of Ulysses among the Phæacians. Why did Ulysses think that Nausicaä was well ready to be a good homemaker? (From a translation of Homer's *Odyssey*.)

b. Find how girls were trained in medieval times. (*When Knights Were Bold*, by Tappan.)

c. What did Priscilla know that should make her a good housewife? (Earle, *Home Life in Colonial Days*.)

3. Make a list of twenty duties that belong to a good homemaker. Mark an *x* after any one of these that you think the man of the house or the boys should perform. Make a list of five qualifications that you think a girl should have in order to be a good homemaker.

4. Write a description of a home — not a house — that you would consider ideal. List the duties of each member of the family in making the home what it should be.

5. Do you know of any women who manage eating places? Are they owners or are they employed by the owner? What is a hostess in a tearoom? What are the advantages and

disadvantages in working as a hostess or manager for a salary rather than owning such a place?

6. Look in the "Want Ad" section of a daily newspaper for advertisements about trade schools. Cut out any that claim to prepare for one of the occupations mentioned thus far in this chapter. Paste the most interesting one of each class on a page of your notebook. Below it draw an oblong like the following and fill in the blanks.

COST	TIME IT TAKES TO LEARN	ADVANTAGES (USE QUOTATIONS FROM THE ADVERTISEMENT)

A MOTION PICTURE

Because there are so many possibilities for the graduate in this curriculum, we have spent more time on home economics than we shall on the other miscellaneous occupations. Imagine yourselves now watching a motion picture that shows a procession of sundry adventures.

The beautician and barber. The picture begins and we see men and women engaged in the work of improving the appearance of others. In your adventure, would you like to wash, cut, or curl hair, to massage faces, to manicure finger nails, or to shave chins? There has always been more or less of this work in the world. In olden times a maid would brush her mistress's long hair for hours at a time. Boxes of materials for beautifying the face and hands are found among the very old relics of the Egyptians and Greeks. But most of this work was done for the richer class of people, for the few who could afford to pay for it. Today beauty

shops are to be found at every turn. All workers must have licenses, and men as well as women are employed. There are training schools which issue certificates after a certain amount of work has been accomplished. The training, which takes about three or four months, includes the use of electrical appliances and the understanding of massage. A



Photo by Kaufmann & Fabry

A large barber shop of today. The increased feminine trade makes even greater demands than formerly upon the skill and versatility of the operator.

hairdresser with artistic ability or training would have an advantage over others.

In European countries, boys and men have long managed and worked in beauty parlors, and their number is increasing in this country. But boys and men will find their best opportunity in barber shops. The barber's trade has become standardized and most of the workers belong to

unions, and so are obliged to keep union hours and to work only for union prices.

The photographer. Here is a man photographing a football game for the newspaper. He is called the camera man. Photography is something of a profession, but more of a business. You have seen how an artist may use his skill touching up pictures in a photograph gallery. The taking of pictures also requires certain artistic ability. The photographer must also be a business man, just as must every merchant. Most photographers specialize, some in pictures of children, others in commercial work, and still others in illustrations for magazines, newspapers, and books. As special experts they may also take pictures from the air.

The tour conductor. By the next picture, one cannot help being thrilled. Men and women here and there are bustling about followed by crowds of excited travelers. Here is real adventure. They are conducting tours to the East, to the far West, to Europe, to South America, and even around the world. It looks exciting, but we must decide about the advantages after we have examined the troubles of these conductors. First of all they have been obliged to sell the trip to the party. They have bought tickets for twenty or thirty people; they have studied rates and have planned tours; they have attended to baggage; and, in short, have saved their parties all the worries that usually annoy travelers. If they know buildings, pictures, history, and even some foreign language and a bit of geology, they may explain many points of interest in their trip. They must know the price and location of hotels and the best type of transportation in cities which they visit.

The bureau manager. Sometimes people with this knowledge open travel bureaus in their own city. Here they are ready to give information to the many world-wanderers who come to inquire. They buy tickets and recommend hotels without charging the inquirers for their

services. How, then, do they earn their living? It is not the people who buy, but those who sell, that pay the salesman directly. The hotels and boarding houses pay for being advertised. The railroads and steamship companies pay commissions for tickets sold. They were



Courtesy of United Air Lines

The stewardess helps to shorten the journey for these air passengers. She must be versatile because of the many duties she may have to undertake.

ingenious people who thought of making a living by giving this service.

The janitor. The picture moves past tall buildings where men are seen cleaning walks, polishing metal, or washing windows. These men are janitors. They must understand every kind of mechanism from the lock on a

door to the oil burner. In large buildings these men have assistants and then are often called superintendents. In apartment houses they usually get their living quarters rent free, besides their wages. There is a chance to make extra money when tenants call for special service. Janitors have organized into unions, and this keeps down the number of members.

The hand-worker. Next we see a group of workers skillful with their hands, engaged in interesting occupations. Some are weaving baskets or rugs, some are making hooked rugs or designing drapery or curtain ties. Boys, clever in the use of the knife, are wood carvers. In large furniture companies men do the hand carving on much of the period furniture. Others are making hand-wrought silver jewelry and various articles for the pleasure of those who like something "a little different." Batik, hand-dyed, and hand-painted scarves are popular. Indeed, those skillful in the use of their hands find many ways in which they can use their gifts to earn their living.

Tiny glimpses of opportunities. Now we have a reel with a procession of occupations. Just take a peep at each. Then be ready to choose one for further study.

The picture is moving. Large buildings in great cities, pretty, comfortable houses in country places appear. These are hotels and boarding houses. What type of men and women are managers? How have they learned their business? Who works for them?

Clean clothes, clean linen, collars, cuffs, gowns, curtains appear. Someone knows how to manage a laundry or to do handwork at home.

Slowly there moves past a shop, men with white aprons deftly handling large knives are skillfully preparing cuts of meat for the hotelkeepers and housewives. They have learned the butcher's trade.

A lively crowd with muscles well developed is made up

of professional athletes. It would be well to see if "clean" sport is possible before plunging in.

The next picture shows a tiny speck on high — a steeple jack putting a new hand on the tower clock. How did he learn his trade? Is he necessary to the rest of us?

Here is a man lively with his tongue, and loud with his hammer. He is selling the furnishings of some home or business that is to be closed. You know that he is an auctioneer.

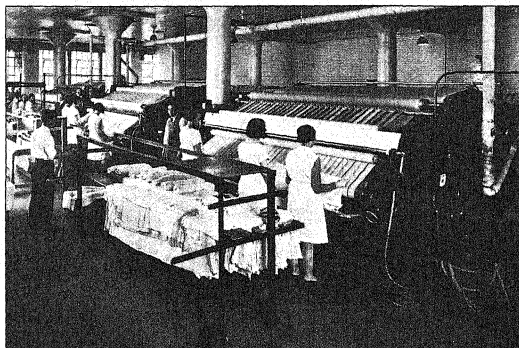


Photo by Kaufmann & Fabry

This illustrates work in a modern laundry. The building itself and the dress of the employees suggest the care taken to insure a high degree of sanitation.

A man leaning over the victim of an accident is manipulating the injured person's muscles with various skillful twists and movements. He is a masseur giving Swedish massage, and in the next group is his sister, a masseuse. We admire the skill of their movements.

In the office of a translator, a business man is waiting to have an order which he has received from a foreign country translated for him.

Here in an attractive living room is a man tuning a piano. What must he know about music to carry on this work?

Those men in their warm clothing walking through the freshly fallen snow are trappers, traders, and hunters. Will they be as busy next summer as they are now? Some men in this country are fur raisers also. Can this work be carried on only in a cold climate?



P. & A. Photo

On the world's largest duck farm thousands of ducklings are hatched each week. The last step in preparing the Long Island duckling for market is shown here.

All the business men and women have gone to their homes, and in this large office building a night watchman is on duty. Why do we need such workers?

Crowds of people are pushing their way to an exhibit at a radio convention. A hostess is greeting them. What will her work be following the convention? Find other places where a hostess may work.

"Five gallons of gas," the driver is saying to the attendant at the filling station. Does this lad have more of a future than does the chauffeur at the wheel of a car?

There is the ringing of a bell before a cart comes down the street. The man is calling "Scissors to grind," or perhaps he is saying "Umbrellas to mend." Are there other ways in which you can have such work done?

That man leans against a belt or a rope for support while he is washing the outside of windows in a large office building. Will he do other cleaning in the building or will he do nothing but wash windows all day long?

How we should enjoy an hour in this attractive shop! Bright-colored glassware that was used in the time of our great-grandfathers; an old desk like the one that Jefferson used; candlesticks, silverware — every sort of antique article. Such shops have been popular so long that perhaps it is time for some of you to imagine other articles that will appeal to the buyer.

Across the street we spy a window full of books. Dozens of people who do not care to pay for a new volume and yet want to keep up with the latest reading matter patronize the enterprising girl who rents these books for five cents a day.

In the next picture, it is the day before Christmas, and those people are buying their loveliest gifts from the florist in the corner store. Evidently there is to be a wedding soon, for a girl has been sent to order the bridal bouquets. She shows such taste in her selections that the florist offers her a job — to arrange all special bouquets for his trade. Thus she finds her place.

The film grows somewhat dim as fading occupations appear. Here is a group of eight. They are setting music type by hand. Listen! This is a talking picture:

"We'd better keep this job. There are only five other firms in the United States that have the equipment to set this kind of type."

"Yes, and there are only between twenty and thirty men trained to set it. How did we ever get into this? Those long stretches when music books are not printed get on my nerves."

"Surely it was hard to learn and our craft is dying out, but meanwhile we are adding to the music of the world."

Then come more and more, like the figures in Lorado Taft's "Fountain of Time" — agents, special kinds of salesmen, fancy dancers, and dog fanciers. The procession grows dim in the distance, but there is no end. Can it be possible for anyone with imagination to be without work in the world?

QUESTIONS AND EXERCISES

1. Choose one occupation that has passed by in this picture, or some other that has not appeared. Be sure that each member of the class has something different from the rest. Now do some research work of your own. Try in every way that you can, by asking people, by searching through magazines, by looking for the books mentioned in the bibliography, by sending for catalogues to schools that train for your occupation, to learn every possible thing about the one you have chosen. Now be ready to write a paper or to give a talk to the class describing your occupation. Tell what kind of person would fit in. What preparation would he need? What advantages and disadvantages can you mention?

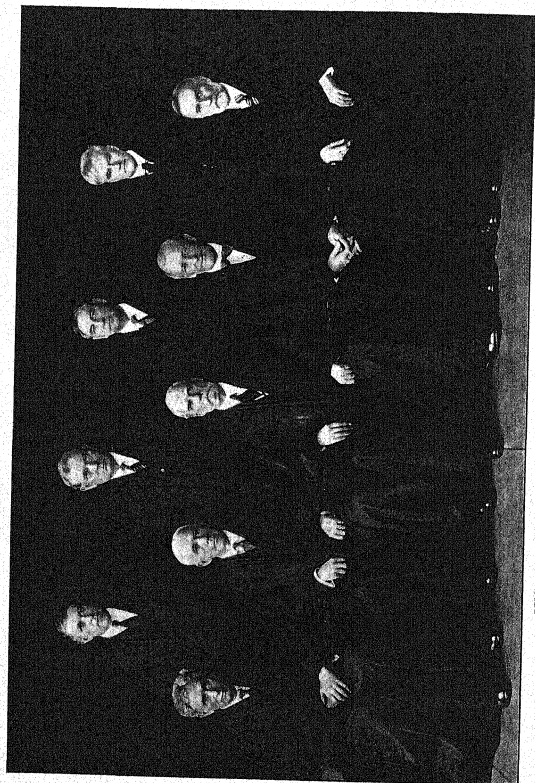
2. Study the quotation at the beginning of the chapter. Make a list of ten different occupations that it suggests. Tell why people would like to know about the men or women who can do these things. Do you think that they would be found without advertising?

3. Make a list of as many other odd occupations as you can think of.

BOOK THREE

OUR GOVERNMENT AND OUR
ADVENTURE





JUSTICES OF THE UNITED STATES SUPREME COURT

© Harris & Ewing

CHAPTER XV

HOW OUR GOVERNMENT CAME TO BE

We wish, finally, that the last object to the sight of him who leaves his native shore, and the first to gladden his who revisits it, may be something which shall remind him of the liberty and the glory of his country! ¹

Protection and welfare. Our adventure of living is not so simple as some of the old fairy tales picture it, for, besides the great network of occupations through which we must find our way, we must reckon with a force that binds all of these occupations together. This force protects men in their work. Sometimes, for the protection of others, it demands that men fulfill certain requirements before they are allowed to carry on in their chosen vocation. This power not only protects, but also helps in many other ways. For example, it gives us coins and other legal tender with which to carry on our business, and it keeps others from grasping what we may have the talent to invent. In many occupations this force is at hand as an adviser to give information on experiments that have been tried and discoveries that have been made. This force we call government.

Helpers. To do all this work, our giant benefactor employs hundreds of thousands of helpers. You have not learned all the possibilities in your adventure of living until you have found out something of the organization and workings of the government under which you live. You should know that the government offers many opportunities

¹ Daniel Webster — Address on laying the cornerstone of the Bunker Hill Monument.

in the way of a vocation, and that no matter what occupation you may choose, you are likely to feel its power in controlling and protecting you. Again, work for the government must occupy a part of the time of every good citizen, for citizens are the government.

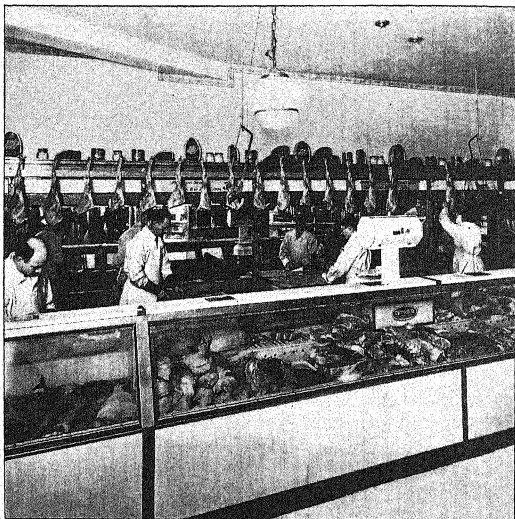


Photo by Kaufmann & Fabry

In this butcher shop the government steps in in several ways. The meat has all been inspected, the scales have been tested, and the store has been licensed. The government is working for the welfare of the people.

QUESTIONS AND EXERCISES

1. Write in your own words the meaning of the quotation at the head of this chapter.

HOW THE NEED OF GOVERNMENT HAS BEEN MET

In Sparta. From ancient times, people have had more or less work to do for their government, and in turn have expected to receive protection at least. In Sparta the work consisted mainly in fighting. All boys were trained for this. If they could endure suffering and hardships, they had gone far towards being ready for a vocation that they must surely follow. Sparta had to fight hard to hold its place on that little peninsula in the Mediterranean. Life for Spartan boys was hard and cruel. How would you have liked such adventures?

In Athens. In Athens, the neighbor of Sparta, it was different. Here the citizens all helped not only in protecting, but also in governing their little state. The slaves did the work that we think of as vocational. This gave the native-born freemen, who alone were citizens, time to govern the state. They all met together to discuss public affairs and to vote for their officials. How important it was that each be trained for his vocation as part of the government! These citizens were trained in the fine arts and in debate. Physical perfection was one of their ideals. They demanded courage and skill in the arts of war. Their standard is shown by the oath that every Athenian boy took when he entered into manhood. Other boys, the sons of aliens and slaves, might prepare to carry on the ordinary occupations; he, as a free citizen, was to be a part of the state. Which life would you have preferred, that of the Spartan or the Athenian youth?

The Middle Ages. In feudal times government in Europe was in the hands of noblemen and kings, who gave protection to their vassals, who in turn fought for their lords when necessity arose. This military aid was practically the only kind of government service at that time, because the overlords were engaged chiefly in conquest and defense.

Changes. As you see, in olden times, the chief work for the government was military, not chosen by boys as a vocation, but forced upon them by those who controlled the country in which they lived, while as a rule, under modern governments, the people have the right to decide whether or not they will choose government work for their vocation. Besides military service, there are many more kinds of



By Ewing Galloway, N. Y.

During the Middle Ages castles were protected by walls and moats. The castle shown in the picture dates back to the thirteenth century.

government work to do. Why did these great changes take place? In the nations which had developed from the feudal system, the peasants and middle class had little to say. They had all they could do to keep from starving and to pay the heavy taxes that were imposed upon them by the nobility who wished to live in comfort. While the governments gave them protection, they did little for their welfare. It took centuries of struggle and some terrible revolutions before even a few of the nations learned that

those who pay the taxes, and those who may be called upon to give their lives in case of war, should have an actual part in government.

In America. The colonists who came to America from England in the seventeenth century had inherited a spirit of liberty. The English people had from time to time obtained certain rights from their kings. In 1215 they had forced King John to sign a paper taking away some of the power of the king and giving it to bodies of men selected from the people. This was the Magna Carta or Great Charter. So for centuries the English people had been gaining more rights. These were so important that they were willing to struggle hard and sacrifice much to gain them. Because the American colonists were British subjects, they valued their freedom. For over one hundred and fifty years, the thirteen colonies had a great deal to say about their own affairs. Then, under the rule of George III, they felt some of their rights slipping away. Winning the war with England made them independent so that they could choose their own officials, vote their own taxes, try defendants in their own courts, and make their own laws without sending them to the mother country for approval.

Growth after the Revolution. The thirteen colonies had had charters from England giving them the right to carry on their own affairs. They now changed these charters into constitutions, instruments drawn up by the people themselves for their own government. The charters had granted them so much liberty that there was not a great deal of difference. Of course there were to be no more kings, no more titles of nobility, and no more connection between the church and the government. The colonists, however, had much to learn as they tried to provide for protection and for the general welfare of the people. These are the two main duties of the government.

The steps in learning how to govern. The greatest difficulty that the colonies met in governing themselves was that they had never learned to act together. They had tried plans of uniting at different times, but they had formed no permanent union. The first Continental Congress met in Philadelphia in 1774. The delegates to this Congress were chosen by the people who were discontented with the rule of King George III. They evidently did not intend to separate from England but to force her to stop some of the actions that they felt were harming the colonies. Since this harm was largely in the matter of trade, they planned to boycott British goods and to try to force everyone in America to work with them. In 1775, during the second Continental Congress, the Revolution began, and the Congress declared the colonies' independence of England. While carrying on the war, the Continental Congress formed the Articles of Confederation in an attempt to link the thirteen colonies together. But the link was very weak. They held together during the war because they had a common cause in their quarrel with England, but Congress had not sufficient power for times of peace. Each of the thirteen states was jealous of its own power. Each state felt that they needed only a weak chain tying their little group lightly together.

Plans for a stronger government. When by 1787 they had found that they needed "a more perfect union," they called a constitutional convention to draw up a plan of government which should unite these thirteen independent states in such a way that, while each kept its own constitution, they would be bound together by a government able to protect the whole and to provide for the general welfare. The states sent a group of remarkable men, among them Washington, Madison, Hamilton, and Franklin. They worked without sparing themselves during the hot summer months in old Independence Hall in Philadelphia. They

produced the Constitution of the United States. There is small wonder that there were many conflicts before they could decide on the details of this important document. In order that the national or federal government might be strong, each state had to give up a great deal of its power. The new government then formed had the power to collect taxes, to regulate commerce between states, to issue money, to protect all the states, and to enforce its laws. The states remained strong, and as we shall see had many powers that were denied to the federal government. Thus a democratic, federal government was established, a thing that had never happened before in history.

Amendments. The states, however, had scarcely accepted the Constitution before the people found it necessary to add ten amendments in order to make safe their rights as citizens. These ten are often called the Bill of Rights. In the following century and a half we have added eleven more amendments, and now the whole national government is based upon this Constitution with its twenty-one amendments. We call it the basic law. The only way to change the Constitution is to add an amendment. Article V describes the way in which amendments may be made.

Your attitude. Think of the adventure that the many builders of our government have had in making it what it is! And now you are a real part of this particular adventure. You may give more or less time to it, according to whether you choose government service for a vocation, as an important interest outside of your vocation, or merely as the plain duty of every good citizen. You will understand its organization better when you realize that the forms of our government have grown up as means of protecting the people and of promoting their welfare. Your adventure will come in helping to keep it up to its highest standards, and in making it still better as the years go on. To get the

right start, you must first of all learn what form this government has taken, and then how it works, and finally how you may help.

QUESTIONS AND EXERCISES

1. Draw a 6" \times 9" oblong with four columns. Label this oblong *Training Boys for Citizenship*. Label the first column *The Spartan Boy, a Soldier*; the second, *The Athenian Boy, a Citizen*; the third, *The Boy of the Middle Ages, a Knight*; the fourth, *The American Boy or Girl, a Citizen*. Fill in all four columns with as many points as you can, drawing from the information that you have gained in this book, and from anything you can find in the library. Be able to discuss the advantages of each kind of training.

TRAINING BOYS FOR CITIZENSHIP

THE SPARTAN BOY, A SOLDIER	THE ATHENIAN BOY, A CITIZEN	THE BOY OF THE MIDDLE AGES, A KNIGHT	THE AMERICAN BOY OR GIRL, A CITIZEN

2. Look up in the dictionary the definitions of the words *charter* and *constitution*. Explain carefully the difference between the two. Mention three examples of the use of each.

3. From your American history, find out what were the weak points in the Articles of Confederation.

4. Make four columns on a page of your notebook. Head the first column *Attempts to Work Together*; the second, *Dates*; the third, *Places*; the fourth, *Purpose of Work*.

Fill in these columns in regard to as many of these efforts made by the settlers in America as you can. Look in your American history for the facts.

5. Every Athenian boy as he entered manhood was obliged to take the following oath:¹

I will never bring reproach upon my hallowed arms nor will I desert the comrade at whose side I stand, but I will defend our altars and our hearths, single-handed or supported by many. My native land I will not leave a diminished heritage but greater and better than when I received it. I will obey whoever is in authority and submit to the established laws and all others which the people shall harmoniously enact. If anyone tries to overthrow the constitution or disobeys it, I will not permit him, but will come to its defense single-handed or with the support of all. I will honor the religion of my fathers.

Find out what is meant in this oath by the following: *hallowed, hearths, altars, diminished heritage, harmoniously enact*. Now look over the oath carefully, sentence by sentence, and write a paragraph telling whether you think just such an oath should be taken by American boys and girls. Are there any pledges which were fitting for Athens but which do not belong to America of today?

6. Read sections 8, 9, and 10 in Article I of the Constitution of the United States. Now make an oblong of five columns. Head these columns: first, *Things the United States Government May Do*; second, *Things the United States Government May Not Do*; third, *Things the State Governments May Not Do*; fourth, *Things Either Government May Do*; and fifth, *Things the State Governments May Do*. Now fill in each column with as many points as you really understand. Of course, what we usually mean by things they may do is laws they may make. When you have filled the first four columns, you may know that the states may make laws about almost every other possible thing. That is, certain

¹ Translation by J. W. Taylor, in the *Classical Journal*, April, 1918. Used by permission.

things the United States or federal government has charge of, certain things belong to both governments, the people have forbidden certain things to each government. As long as they pay attention to these four kinds of regulations, the states have the power to make any kind of laws that the people in each state want. You can easily think of twenty points for the fifth column.

7. The people in making their constitutions assigned or distributed the powers mentioned in the last paragraph. It seems then that there is nothing left for the cities and villages, and yet they are always passing laws, or ordinances, as they are called. Power is given to the local unit by the state in which it is situated. Each unit must receive its charter from the state, somewhat as the thirteen colonies received theirs from England. According to these charters they are allowed to pass ordinances, but they may go no farther than the charter permits. Invent a diagram to show to how many governments you belong. By means of arrows or any other device, show who gave to each unit its power.

CHAPTER XVI

GOVERNMENT WORK IN ITS THREE DEPARTMENTS

The law is the last result of human wisdom acting upon human experience for the benefit of the public. — SAMUEL JOHNSON (1709–1784)

Units of government. Most of the excited discussions of those hot days in Philadelphia when great men were forming our Constitution arose because the independent states were fearful of giving too much power to the central government. Who can blame them? Their charters in colonial days had allowed them to settle most of their own problems. Perhaps a strong central government might interfere with their rights even more than King George with his unwise rule. It is the union of these states or units that makes ours a federal government. The central government is strong; at the same time each state is strong; each has been given the power to make certain kinds of laws. For this reason we are each protected and helped by two governments. It happens that these colonies from which our states developed were already made up of units, some called counties, some parishes, and some townships or towns. Some of the new states that have been added to our Union had both counties and townships. In these cases the township was the smaller division. Then, as people began to live closer together in certain parts of the state, they formed village or city governments to take care of local affairs. This has made a network of governments, national, state, and local, so that each of you belongs to several units, all of which are parts of one whole. Our adventure of living

is not so simple as that of Robinson Crusoe on the desert island.

An illustration. Our forefathers believed that the only way to keep any unit of government from abusing its power was to have a system of checks and balances. Suppose that you wish to play on the basketball team. You must qualify on the floor of the gymnasium and thus gain the permission of the athletic director. After that you must take your card of permission to your teachers for their check indicating that your classwork has come up to the required standard. Even that is not enough, for you must next visit the school doctor to see that you are physically able to play the game. But suppose there has been a mistake on the part of the teachers, and you have been allowed to enter an interclass game even though you are failing in part of your work. Probably you will be brought before the athletic committee, who will decide whether or not you are really eligible for the team. Thus there would be four checks in regard to your right to play. No one of these could give you permission if the others refused, and all must make their decision in the light of the rules laid down by your athletic association.

Departments of government. Let us see how our Constitution provides for checks and balances. In each unit we have the legislative, the executive, and the judicial departments. The legislative (from the Latin word meaning *law*) department makes the laws. The executive (from the Latin word meaning *to carry out*) has the power to administer or carry out the law. The chief executive may veto (*say "No"*) to the law passed by the legislative body. If anyone is accused of breaking the law, he may be brought before the judicial (from the Latin word meaning *to judge*) department where the judge would interpret the law and decide whether the accused person was guilty. Each of the units of government under which you live has its three departments.

THE EXECUTIVE DEPARTMENT

The chief executive of the United States is, of course, the President. The chief executive of each individual state is the governor. In the county we have usually a board of commissioners, and in the municipality,¹ the mayor, the city manager, or the president of the board of trustees.

The federal executive. The President has tremendous responsibility and much power. His is the chief influence in our relations with other countries. He can send messages, make agreements, and order the movements of ships or troops so that we could either be drawn into or be saved from war. To be sure, the Senate must agree to all treaties with other countries and may change them, but the President may always refuse to sign any treaty of which he does not approve. He may pardon or commute the sentences imposed upon criminals against the federal law. He may call special sessions of Congress. He is not a member of Congress, and yet he may influence the lawmaking of that body. If, however, he uses his right to veto a bill, Congress can still make the bill a law by a vote of two thirds of each house. At the opening of each regular session of Congress, he sends a message, which may be heard over the radio or read in the newspapers all over the world. In these ways not only Congress but also the American people can know what the chief executive believes the legislative body should do. In order to carry out his duties in administering the laws, the President may go so far as to use the United States Army or may call out the National Guard.

Your part. Our presidents have come from the ranks of professional men: from lawyers, educators, engineers, and journalists. You will have a chance, some day, to cast a vote for the man whom you consider best for this position. Always your duty as a citizen is to be loyal to

¹ The word *municipality* means city, town, or other local unit.

the man whom the majority of the people have chosen as President, to help in the things that he is trying to do for the good of the country, always knowing that at the end of his term the people will have the privilege of putting another in his place.

The President's helpers. The President, however, is not the only member of the executive department. He selects to assist him a cabinet of ten members, each of whom is the head of a department.

CABINET MEMBER	DEPARTMENT
Secretary of State	State
Secretary of the Treasury	Treasury
Secretary of the Interior	Interior
Attorney-General	Justice
Postmaster-General	Post Office
Secretary of War	War
Secretary of the Navy	Navy
Secretary of Commerce	Commerce
Secretary of Agriculture	Agriculture
Secretary of Labor	Labor

Together the ten men at the head of these departments act as a board of advisers to the President. Each has under him a large number of assistants, clerks, and experts who help him in caring for the affairs of his department. These must gather all possible information related to their work. From time to time, the President or members of Congress may ask for this information. "Knowledge is power"; therefore the cabinet member has influence.

He also has responsibility. When Herbert Hoover was Secretary of Commerce, there came the great floods of the Mississippi and its branches. Mr. Hoover knew how this affected the business of the country, and what might be done to avoid such disasters in the future. So when a bill was presented to Congress by which large sums of money



Courtesy of International Harvester Company

Both the federal and state governments help to support institutions that carry on research work to improve the methods of farming.

were to be given for this purpose, the Department of Commerce knew so many facts that the committees of the House and Senate had to listen.

State executives. In the states the chief executive is the governor. He has not so much power as the President, but the nature of his powers is not very different. He may veto bills, may call special sessions of the legislative body, often sends a message, may pardon or commute the sentence of offenders against the state law, and in some

states even selects a cabinet, which serves him much as the one in Washington does the President. Your chances for work in the executive department in one of the forty-eight states are greater than in the nation, but there are more opportunities nearer home.

Local executives. The executive department of the county is usually a board of commissioners helped by the sheriff. Since the county is a division of the state, the duty of its executives is to enforce the state law. The sheriff has power to arrest criminals. If necessary, he may call out a group of able-bodied men, called a posse, to help him. Your county highways, your forest preserves, the public institutions where the very poor and other unfortunate people are cared for, all of these are provided and supervised by the county board. The state fixes a certain rate of taxes and gives the county board the power to levy them. The county needs clerks, stenographers, and many other helpers.

Even nearer to your everyday life is the municipality, which also has its executive department. If you live in a city, you probably have a mayor who, like the President and the governor, must execute the laws of his unit. To help him in this he has the police, just as the President has the army, and the governor has the state troops. Some cities have a commission form of government, and some have the city manager plan which is growing in popularity. There are many departments for carrying on the work of the city. There are heads over these departments often appointed by the mayor, and these require many helpers. A town or village is much the same, but the chief executive is usually the president of the board of trustees.

THE LEGISLATIVE DEPARTMENT

The national congress. The lawmaking body of the federal government is the Congress of the United States, which consists of the Senate and the House of Representa-

tives. Two senators are elected from each of the forty-eight states to serve for six years. The number of representatives elected to the House is in proportion to the number of inhabitants of the state. For the purpose of this election every state is divided into congressional districts of about 200,000 people each. The representative's term of office is two years. We have ninety-six members in the Senate and 435 in the House.

The state legislature. Each state has a lawmaking body which also consists of two houses. In some states this is called the State Legislature, in others the General Assembly. For representation in this body, the state is divided into senatorial districts. From each of these one member is elected to the state senate. To elect members to the House of Representatives, which is larger than the Senate, the state may be divided into smaller districts or more representatives may be elected from each senatorial district.

Local lawmaking bodies. You have already learned that the county commissioners are the executive body for the county. To a certain extent they are also the lawmaking body. Chiefly they carry out the laws made by the state, but they may make certain regulations in regard to county affairs.

In a municipality we have a council, a commission, or a board of trustees, depending upon the form of government. A city is divided into wards, each of which is represented in the city council by one or more aldermen. A commission or board has fewer members, each representing the municipality as a whole. The council, commission, or board passes laws, called ordinances. Those young adventurers who desire to help in making laws have at least a chance of finding an opportunity in one of these four bodies, Congress, the state legislature, the county board, or the city council.

How laws are made. Almost any bill — the name given to a proposition before it has become a law — may be intro-

duced into either the Senate or the House of Representatives. It thus starts on an adventure of its own.

In the House or Senate. Imagine that Congressman Jones from the third congressional district of Indiana has been asked to introduce a bill proposing that a certain amount of money be used for national highways. The bill has already been "drawn up," or written in the proper form by



Photograph by Underwood & Underwood

This shows a section of the Congressional House Document room where the bills presented in the House are filed. Sometimes as many as a thousand bills will be introduced in one day.

a lawyer. Through Representative Jones it gets into the hands of the clerk of the House. At a meeting of the House, the clerk reads the titles of many bills that have thus come to him. "A bill for the appropriation of \$1,000,000 for national highways." The Speaker says, "Assigned to the Committee on Appropriations"; the clerk says, "Number 1567," and no more is heard of this bill for some time.

To the committee. During the following weeks, the bill is in the hands of this committee. It becomes known to the people interested that the committee will consider this bill on — say, January 25. Various people, men and women,

some in favor and some against, visit the committee meeting on that day, where they may be allowed to give short talks showing reasons why they wish the committee to consent or to refuse to put the bill on the "calendar." From all parts of the country, also, the committee members receive letters trying to influence them. This committee has the power of killing the bill. The bill may never get back to the House. On the other hand, it may be put on the calendar. This means that if there is time, it will have its turn for discussion by the representatives.

Back to the House. After the bill is put on the calendar it is printed, and every member has a copy so that it does not need actually to be read in the House. A debate is held in which members rise and talk of certain points by referring to the page and line as "page 6, line 15." This is called the second reading; at the third, the vote is taken. If the bill is passed by the House, the clerk or secretary goes to the Senate chamber, announces that House Bill Number 1567 has been passed, and requests the Senate to agree. Then the bill must again be handled in the Senate by methods similar to those used in the House.

To the President. If it survives all this, it is signed by the President of the Senate and by the Speaker of the House, and is respectfully sent to the President of the United States for his signature. If he signs it, it becomes a law and is published. If he vetoes it, it may be difficult to get the two-thirds vote of the members of both houses, necessary to make the bill a law in spite of the President's judgment against it. The President sends his objections with his veto. The whole country may know his opinion. These are just the simplest facts about lawmaking.

The amendment. These laws must be constitutional. But sometimes a group of people might want to propose a law which is not provided for in the Constitution, and then an amendment must be made. The process for an amend-

ment is the same as that for passing a bill, with a few exceptions. The first proposal is called a joint resolution. Both houses must pass it by a two-thirds vote. After that it must be ratified by three fourths of the states. And then it is written into the Constitution.

The Nineteenth Amendment. The amendment giving women equal suffrage with men became effective on August 26, 1920, when the thirty-sixth state (Tennessee) ratified it. This resolution was practically the same as the original drafted by Susan B. Anthony and Elizabeth Cady Stanton in 1875, and during the following forty-four years it was submitted to Congress many times. Finally in 1918 President Wilson himself made a personal appeal before the Senate for the passage of this resolution and in 1919 it was adopted by the necessary two thirds and was submitted to the states. Thus it went through the regular process for amendments.

In the states. The ways of making laws in the nation and in the states are about the same. There is only one state in which the governor may not veto a law, and some of the other states differ in the number of votes required to pass a law over his veto.

In the city. On the other hand, the city councils differ in that they usually have but one chamber. The general way of making laws or ordinances is very much like that of the two larger legislative bodies, and the mayor, like the President and governor, often has the power of the veto. Lawmakers with high ideals, in all the units of government, can do much to keep American standards high. Perhaps your adventure in a life career will lead you in this direction.

THE JUDICIAL DEPARTMENT

Interpreting the laws. Each body of lawmakers is limited in its power by the constitution or charter of the unit under which it works. The Constitution of the United States enumerates the kinds of laws that Congress may pass and the

kinds that it must not. If the people wish other national laws, they must amend the Constitution. The states, on the other hand, make their own constitutions, by which they set a limit in the passing of laws. Certain powers are also refused the states by the Constitution of the United States. The counties, as you have seen, have only the responsibilities which are given to them by their states. The municipalities obtain charters from their states, and these plainly set down the powers given to the cities or towns.

Who is to decide whether or not the lawmaking bodies are breaking through the limits set by the constitutions? This is a duty of the judicial branch of the government. The court decides not whether the law is good or wise, but whether, according to the constitution, the lawmaking body had a right to pass it. If the decision is against it, the law is declared void, or, in other words, there is no such law.

The judge at work. The judges do not go out to find work, but while they are "sitting," or presiding over courts, cases are brought before them. After evidence on each side of a case has been presented, the judge decides what the law means, and whether the defendant has broken it. If he has, the court must state what the punishment must be. His decision not only applies to this particular case, but also becomes a "precedent." It is printed in books, and in similar cases lawyers refer to it before other judges. It has itself become a sort of law. Another power of the judge is that of the injunction. This is the judge's order not to do or to do some particular thing. At one time when there was a strike among miners, a federal judge in Indianapolis ordered the miners to go back to work. Thus, by an injunction, he had practically made a law. How important it is that our wisest men should be "on the bench"!

If you have ever read stories of trials, you will know that in courts there are not only judges, but also lawyers and often a group of men called a jury. A sheriff or marshal may

also be on hand and there may be a number of witnesses. All but the jurymen and witnesses are there because of work connected with their vocation. The jurymen are called in to do their duty as citizens. In the Bill of Rights, it is written that every citizen has a right to a trial by a jury of his peers (his equals). The names of twelve jurymen are drawn from those of all classes of citizens, so that the poor need not be tried by the rich nor the rich by the poor; the merchants by the lawyers, nor the dentists by the bankers. Not only may his peers try a man, but also they may even accuse him. Twenty-four men compose a grand jury, which is in session a month at a time. Their duty is to decide whether it is just to bring to trial a person suspected of committing a crime. Sometimes they find so little reason for suspecting him that he is released. If they judge that he might be guilty, they indict or accuse him. Later he is tried before the jury of twelve, called the petit jury. The grand jury accuses; the petit jury decides whether the accused person is guilty. Not every state, however, has the same forms. You should study the customs of your state.

Federal courts. There are three ranks of courts to which judges are appointed by the federal government. First there are in the United States about eighty districts to each of which are appointed from one to four judges. Cases that have to do with breaking the national law are brought to these courts. Each state has at least one district court which has "original jurisdiction." Cases are brought there for the "original" or first trial. If there is any chance that the trial has not been fair, the defendant (the person accused or sued) has the right to take his case to a higher court. For this purpose the country has been divided into ten circuits in every one of which there is a court. These are called appellate courts, because to them cases may be appealed. Then there is the Supreme Court, which meets in Washington, and is composed of a chief justice and eight associate

justices. This is the highest court of appeals, but only the most important cases can be brought before it. It also has original jurisdiction in certain cases; for example, it may decide whether a law passed by Congress is constitutional, and it alone may try cases of treason against the United States.

The judges. All federal judges are appointed for life by the President with the consent of the Senate, so that a judge appointed by the chief of the party then in power still continues in office no matter what change is made in the other government officials. Thus he does not need to worry lest he lose his position if he makes a decision unpleasing to the voters. One authority says that the Supreme Court is the great gift that America has given to the republican form of government. It is, he says, the check that keeps the elected officers from abusing their power. When a federal judge is seventy years old, if he has served for ten years, he may retire with his full salary for the rest of his life.

Through the years many men with the finest minds have been appointed to the Supreme Court. Oliver Wendell Holmes, the son of the poet by the same name, is a good example of a man with a sound mind whose judgment grew through the years. He was liberal in his views and his opinions were respected up to the time he retired, when he was over ninety years of age. The first woman to be appointed to the federal bench was Florence Allen, whom Franklin D. Roosevelt appointed to the circuit court.

State courts. In the states, the courts are of the same three grades. The state constitution and laws must be interpreted; offenders against the state law must be tried. Beginning, then, with the lowest, we have for petty offenses or small cases the justice of the peace, the police magistrate, and in larger places, the municipal judge. Then there is usually a county judge—in some counties several—and to these are assigned certain kinds of cases. The work may

be divided; for example, one judge may look to matters concerning wills (the probate judge), while another presides over the juvenile court for children under eighteen years of age. The larger the city, the more special courts you will find. Then every state has appellate courts, or courts of appeal, and a highest or supreme court for the last appeal and for original jurisdiction in certain very important cases. Do not be confused by names, such as superior, district, and circuit, for not all states use the same names for their three grades of courts. County and municipal courts also belong to the state system.

QUESTIONS AND EXERCISES

1. You have learned in this section that while the President is chiefly an executive, he has both legislative and judicial power. At times both Congress and the courts feel his power. On a page of your notebook, draw ten parallel horizontal lines one inch apart. With vertical lines make four columns across these lines. Label these columns *Presidents*, *Executive*, *Legislative*, and *Judicial*. In the spaces in the first column, write the names of the ten presidents who seem to you the most important. Look in your history for things that these men did while in office. Write one deed after the name of the president. If it had to do with enforcing laws, put it in the second column, if with making laws, in the third column, if with the courts, in the last column. In the executive column may come any action for promoting the welfare or protection of the country.

2. Give the title and name of the chief executive officer of your state, of your county, and of your municipality.

3. On a page of your notebook, make the following table for your state, county, and municipality, showing who represents you in making the laws. Across the top write the names of your state, county, and municipality. Now rule off three parallel vertical columns. Divide these by six parallel horizontal lines. Beginning with the second

space of the first column, fill in the five remaining spaces as follows: *Senators, Congressional districts, Senatorial districts, Representatives in state legislature, Counties*. In the top space of the second column, write *Number in state*. In the third column, write *The man who represents me*. Now fill in the spaces for your state and county. You may find the answers in a good almanac published in your state.

4. Imagine yourself a congressman elected to go to Washington to represent your district. You have a bill to present. On a page of your notebook devise a diagram representing the journey of that bill, from the time that it leaves your hands until it is passed in both houses over the President's veto. Show in some way all the places in which it might have been possible for that bill to be killed so that it would not have reached its journey's end. After it has thus become a law, is there any chance of its not living?

5. Define the following words: *executive, municipality, local, commute, federal, veto, treaty, legislative, appropriation, majority, suffrage, amendment, interpret*.

6. Find out what is meant by a *Court of Equity*, a *sitting judge, evidence, a precedent*.

CHAPTER XVII

WHAT OUR GOVERNMENT DOES FOR US

That is the best government which desires to make the people happy, and knows how to make them happy.—THOMAS B. MACAULAY

The makers of our Constitution said in its Preamble that its purpose was "to form a more perfect union, establish justice, insure domestic tranquillity, provide for the common defense, promote the general welfare, and secure the blessings of liberty to ourselves and our posterity." They established the three departments of government, each being assigned its part in the making and enforcing of laws; but after all, laws in themselves cannot protect or help us. Much depends upon the kind of laws, and much also depends upon the people who help in carrying them out. We must study what our government tries to do, what people are needed to carry out its plans, and what occupations they represent.

Protection. Every one of the six purposes given in the Preamble to the Constitution is to provide for the protection or welfare of the people. In olden times protection was the main work or function of governments. Protection was needed against other tribes and other nations. We need protection today against people who try to break the laws, against those who are careless of human life, against disasters, such as fire and flood. To aid the courts and the executives in their work of protection, it is often necessary to use force. This is provided for by laws. Each unit of government has its own force to help in this protection. The nation has its army, navy, marines, its coast guard, and air forces. The states have their own militia, made up of men who give part of their spare time so that there may be

forces at hand in case of an emergency. This militia, or national guard, may be called upon by the President as well as by the governor. Some states also have mounted police.

In the cities. You are familiar with the police force in towns and cities, organized under a chief or commission and having its captains and lieutenants. In the big cities are special police besides the regular patrolmen and traffic



Underwood & Underwood

For the protection of its residents, you have learned that a city maintains a police department. The young woman in this picture holds the unusual position of city desk sergeant.

officers. Do you wish in your adventure to take part in this forceful protection of your fellow citizens? It is perhaps more like the medieval adventures than any other part of our modern life.

Other protection. The detectives of the federal government, the firemen in the towns and cities, and the lifesaving crews on the ocean and other large bodies of water, all of these have opportunities to do valuable and sometimes heroic work for the protection of citizens.

For the general welfare. Citizens might be protected and defended, and yet miss many of the "blessings of liberty." But in modern times governments have increased their efforts to provide these and to promote the general welfare. Every new undertaking for this purpose demands the employment of more people, so that there are always new groups of occupations in government service. What are some of the services, old and new, that the government renders?

Money. The federal government has built mints, and employs hundreds of people to make our coins. Gold is our standard of money, that is, the gold dollar is our unit of value. All United States coins made of other metals stand for a certain part of a gold dollar. Our government has made these coins legal tender. This means that they must be accepted when offered in the payment of debts. Paper money is also legal tender. It is the task of the *Bureau of Printing and Engraving* of the *Department of the Treasury* to make the paper money as well as the postage and revenue stamps, and to do other printing, thus giving a chance of employment to great numbers of people. It is one example of the printing trades.

Banks. Because it promotes the welfare of the people to have a safe banking system, Congress, in 1913, established the Federal Reserve Bank. A board appointed by the President controls this system. The United States is divided into twelve districts, and in each of these is a Federal Reserve Bank. These are banks, not for private individuals, but for other banks. The government allows these Reserve Banks to issue paper money, but it is all safeguarded by valuable papers kept in their vaults. To find out how these banks keep the other banks steady, how they help to keep the right amount of money circulating in the country, is an adventure in itself. If you investigate, it will give you a glimpse of all sorts of paths on which you might start your

life career. In the Federal Reserve Banks you would find the same kinds of positions that you have already discovered in other banks, but your employer would be the federal government. In 1935 the banking act, by which the smaller depositors are protected, was passed in its final form. This is an insurance plan. The banks belonging to the Federal Reserve system are assessed a certain amount of money to help provide a fund which now insures depositors on their accounts up to \$5,000.

The mail service. "Congress shall have power to establish post offices and post roads." This service helps to promote the general welfare, even far more than the men who wrote the Constitution dreamed. Over fifty thousand post offices have been established, mail is being carried into the country districts (rural free delivery), and besides "post roads," the mail service makes use of railroads, steamships, and airplanes. The post office does more than send letters and papers. You may use it as a savings bank. It provides a safe way for you to send money. You may send packages of many kinds and sizes. To take care of letters, papers, packages, and money requires a great many people. Some of these are postmasters, assistants, clerks, carriers, railway mail clerks, airmail pilots, and so on. There are many thousand employees, and at the head of all is the Postmaster General, a member of the President's cabinet. There is a good chance to earn one's living in this department.

The adventure of helping the helpless. When King Arthur's knights rode out to find adventures, one of their favorite deeds was to relieve some sufferer, or to rescue someone in distress. If you have a desire for a like service, you might perhaps satisfy it by getting a position in some one of the many institutions that the nation, state, county, or city provides for the unfortunate. What was true in the Middle Ages is true now. Those who are strong ought to help to take care of the weak. But instead of each one of us



Photo by Philip D. Gendreau, N. Y.

COLLECTING THE MAIL

starting out alone to help as did the knights of old, our government takes the work in hand and through its organization uses part of our taxes for this purpose. Boards or commissions are appointed to plan institutions for unfortunates. These boards, in turn, choose managers, superintendents, and helpers. Sometimes these helpers are teachers,



P. & A. Photo

The men pictured here are gathering leaves in the public park of a large city. To keep the park clean and attractive it is necessary for the city to employ such laborers throughout the year.

as in schools for the deaf or blind. They may be nurses or doctors, as in hospitals for the mentally defective or for cripples. They may care for children in orphanages or act as matrons in prisons or in homes for the poor.

Every unit of government does some kind of welfare work. The federal government provides homes for disabled soldiers and sailors; the state government supports hospitals for the

insane and feeble-minded ; under the county are usually general hospitals and homes for the very poor. Towns as a rule have supervisors of the poor, and the cities often have welfare departments to help all sorts of unfortunate people. Somewhere in this big organization you could find a place to help and to earn your living at the same time. In this work there is need for people who really desire to make conditions better rather than to see what graft they can get for themselves or how easy a job they can find. The work is much like social-service work.¹ Because in the 1930's business was poor and many people lost their jobs and their savings, private agencies were overtaxed and all of the units of government stepped in to help the suffering. When money and supplies are given for relief, organizers, social workers, and helpers are needed. Thus, positions are opened for thousands of people. The government helped also by providing work for the unemployed. Constructing public buildings, paving streets and highways, teaching, and painting were a few of the many tasks undertaken by the government for the welfare of the people.

Our connection with foreigners. In the past we have admitted great numbers of foreigners to this country. Until 1885 most of them came from those countries in Europe from which our earliest settlers had come. After that they came from all parts of Europe and the number increased steadily until about 1910. With this increase came new problems, and from time to time laws have been passed excluding certain groups such as convicts, lunatics, paupers, diseased persons, anarchists, and laborers under contract, or others likely to become burdens on the public. In 1882, Chinese coolies were refused admission and years later Japanese workers were also barred. In 1921 the quota act was passed which limited the number of persons from any country allowed to enter the United States. This act

¹ See Chapter XI.

has been amended several times since to reduce still further the number to be admitted. Because of these laws, officials must be at all the ports to examine immigrants and decide upon their right to enter. The chief immigration official is the Commissioner General of Immigration in Washington. He has assistants in every large city.

In other ways, also, this staff of officers is responsible for the foreigners in our country. Imagine yourself in a strange land, with no understanding of the language, with the need of finding work but with no idea of the way to look for it, and all this in the midst of laws and customs quite different from those of your old country. People without conscience can take advantage of such foreigners. To protect them against fraud and loss is one of the duties of the Commissioner General of Immigration and his helpers.

Adventures leading abroad. But it is not only in foreigners who come to America that we are interested. We also have important connections with foreign countries. All countries send representatives to other countries whose governments they recognize. These representatives are called ambassadors or ministers. With the exception of the Secretary of State, these occupy the highest positions that have to do with foreign countries. We have usually sent men of the highest ability and training. These representatives have a corps of helpers, secretaries, and clerks.

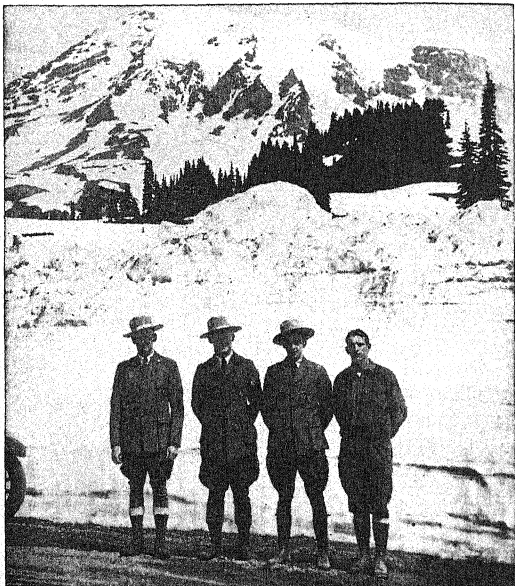
Consuls. In a more commercial way, our country is represented in practically every large city in the world by a consul, one who looks out for American interests in other lands. Consuls send to Washington reports of business conditions: the market for American goods, and the value of products to be sent from their district to the United States. In this way they help in the enforcement of the tariff laws. Again, they are ready to help Americans who need advice or aid of any kind while traveling or living abroad. They also have control of seamen on American

vessels that come to the ports where they are stationed. Consuls are constantly making reports to the Secretary of State at Washington. If you would like to live abroad and still keep a close connection with your country at home, it would pay to look into the possible careers in the consular service, or some of the helping positions under ambassadors. The ambassador's establishment is called a legation.

Thinking of future Americans. If we were a selfish people, content with securing the comforts of life for ourselves and even for our children and grandchildren, much work that the government does would be unnecessary. We should, for instance, use whatever coal and oil are to be found under our land. We should use timber without limit, and should not trouble to plan for irrigating or draining any farm lands that are not needed at present. Possibly we should feel that even the methods of work that have been good enough for us would be perfectly good for our descendants. Much of the work done by scientists, engineers, and other experts, however, proves that we are not thinking of the present only. Our adventure looks forward to the time when we shall no longer be able to take part in it.

Forestry. The work of the United States Forest Service is for the purpose of conservation. It has been proved that the only way to save timber is to have the national forests protected and developed by trained men. Rangers, guards, foresters, supervisors, have been stationed through the government land. They have learned how to protect the forests from fire, from careless cutting, from pests, from reckless tapping for turpentine and resin. The states also own public lands and have begun to set off certain areas as forest preserves. Because of this public example, private owners have also begun to hire foresters. Among these are paper manufacturers, who need the trees for the wood pulp, and water companies, who know the value of forests in

conserving water. You will enjoy investigating the duties of the different kinds of forestry workers.



Underwood & Underwood

The active outdoor life of national park employees appeals to many boys. The rangers here are located in Rainier National Park. Part of their work is to search for climbing parties that have been lost.

In our national parks. Many of these foresters are to be found in our national parks, where they not only conserve the timber, but also help travelers to enjoy these vast play-

grounds that have been set aside for the benefit of the people. An Englishman, J. B. Priestley, after journeying to the Grand Canyon in Arizona, wrote the following :

Even to remember that it is there lifts up the heart. Every member of the Federal Government ought to remind himself, with triumphant pride, that he is on the staff of the Grand Canyon. What a possession for a country! And let me add, how well the country looks after it. The American does not boast enough about his National Parks. Their very existence is something to boast about. The finest pieces of landscape in North America, perhaps in the world, belong to the People and are theirs to enjoy. I take this to be something new in history. It marks a notable advance in civilization. Moreover, the People, through their Federal officers, run these Parks perfectly, and are ideal hosts. All this must not be taken for granted. It is too important.¹

Reclamation. The Department of the Interior has helped in the reclamation of land, that is, making land useful that before was only a waste. There are two ways of doing this : by draining the swamplands, and by irrigating where moisture is needed. Boulder Dam on the Colorado River, the highest in the world, was dedicated in 1935. It will irrigate thousands of acres of land, it will control floods, and will provide power and light over a large area.

Fishing. With the great number of fish taken from our rivers, lakes, and oceans each year, it perhaps seems strange that our supply is not exhausted. As a matter of fact, our government considered the danger of this some time ago and annually replenishes the supply of certain species of fish. Several state fish commissions also maintain hatcheries in which eggs taken from salmon or other fish are fertilized and hatched. Later, the fry, as young fish are called, are returned to the streams.

¹ From "Grand Canyon" by J. B. Priestley, *Harper's Magazine*, March, 1935. Used by permission of the author and *Harper's Magazine*.

Government experts. In the matter of fuel, the Bureau of Mines hires engineers and scientists who are constantly at work figuring out more economical ways of mining and of using coal. For farm lands¹ both state and federal governments hire many scientists who experiment with the soil so that the farmers' children may have better farms than their fathers had.

Keeping the records. Columns of figures may not seem very interesting to an adventurous spirit, but the keeping of them seems, in this age of the world, to be a necessary part of our life. Records are kept by all branches of the government. Many of these are gathered by the Bureau of the Census in Washington. These include the number of births and deaths occurring in each year, the number of people engaged in each occupation, with the number and ages of children who are employed. The number of people handicapped by blindness or deafness, the cause of the trouble, and the age at which the ailment occurred are also recorded. Reports of paupers, of schools, of business, and of patents are kept. After these figures have been collected, they are compiled or put together in different ways for different purposes; for instance, the number of paupers in each state, of each race, of each age, and so on. The people who work with these figures, adding and subtracting and multiplying, are called statisticians. Statisticians work in banks and in other businesses, but the three units of government probably use more than any other employer. In this field there are good positions for those who like to do exact work.

The TVA experiment. In 1933, the Tennessee Valley Authority Act was passed. This is said to be one of the most adventurous experiments ever undertaken in creating a high standard of living for all the people in a large farming section. By this act, farming communities located in the

¹ See Chapter IV.

Tennessee River Valley of seven states will be vitally affected. The two main purposes of the TVA are to raise the standards of living of the residents of the valley and to make this gigantic section a model after which other sections of our country may pattern.

The means used by our government through the TVA are protecting the farmers from floods in the bottom lands and providing them with cheap fertilizer, cheap electricity and electrical appliances for farm and house, better sanitation, and more attractive homes and small industrial plants conveniently situated. This is really our first American experiment in developing an entire river valley as a social, agricultural, industrial, and economic unit. If you could find a place to help the government in this experiment, you would indeed have an adventure.

Other branches of government work. There are so many kinds of work necessary in order to protect and to promote the general welfare of the people that it would take a whole book to tell about all of them. Scientists are employed by the Weather Bureau to foretell and publish weather conditions. The Public Health Service needs doctors, nurses, and their helpers. The passing of the Pure Food and Drugs Act made it necessary to employ chemists to examine and analyze, and inspectors to check up on dealers. Our government protects us in the matter of weights and measures. Absolutely correct measures are kept by the Bureau of Standards in Washington, and dealers all over the country must allow their scales, their linear and other measures to be tested. The patent office must employ people to examine and test when inventors apply for patents. To sum it all up, not only are there certain forms of special work for the government, but also for almost any occupation that you might enter, it would be possible to choose the government as your employer; for the units of government use librarians, teachers, lawyers, farmers, railroad men,

bankers, salesmen, buyers, mechanics, engineers, and unskilled laborers.

Public schools. One of the most far-reaching services of our three units of government has been our system of education. Schools have been an important part of our American life ever since colonial days. From five years after Boston was founded up to the present time, local communities have supported free public schools. Beginning with Massachusetts in 1647 every state has passed laws in regard to the maintenance of schools. In 1787 Congress passed the Northwest Territory ordinance declaring among other things that "schools and the means of education shall forever be encouraged."

Local aid. By far the largest part of the money needed for the support of the schools comes from the local area, that is, from the area in which boys and girls attend a school or a system of schools.

State aid. The states give each year large sums in the support of public education. This is given for schools in poor districts or for special kinds of teaching. For instance, they always give as much as the national government for training in vocations. Sometimes they give money for special work for cripples or the blind.

Federal aid. The money which the federal government gives for the support of the schools is largely for the purpose of vocational training. This is spent partly for continuation schools, partly for trade courses in high schools. Our central government has made large grants of land to the states for agricultural schools and gives money every year to help in the support of these. The federal government also pays for the training of disabled soldiers in various occupations. The schools are free to the persons who attend them, but someone must pay the price of these expensive places of training.

Paying the price. Any good citizen is willing to do his part by helping to pay for whatever makes a better com-

munity in which to live. A community in which only the well-to-do could afford to be educated would soon become an unpleasant and perhaps dangerous place. When a child becomes of age, he may vote or even hold office, and for that reason alone no sensible person is willing to let children

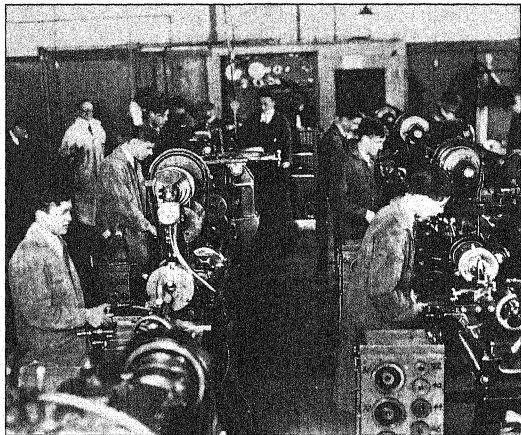


Photo by C. O. Drueschell

This is an actual class in the machine shop of a modern high school. It is one of the kinds that the federal government will help through the plan provided by the Smith-Hughes Act.

remain uneducated. Thousands of people in the big cities go to the parks every pleasant day. On holidays the county and state parks are filled with motorists. On longer vacations many Americans journey to the national playgrounds. The reason that such pleasure seems to be free is that the expense is divided among so many people that it is not heavy on anyone.

The teachers in our schools, the foresters in the national parks, the policemen, the firemen, the public health officers—all these are paid by the whole citizenry. The chief way of meeting the expenses of protection and of the general welfare is through taxation. No one who considers the many benefits he gets for his money can ever object to paying a fair tax. Even though he may never need the protection or the benefits of the government, he is willing to pay his tax, just as he is willing to pay his insurance premium. If his house should burn, the firemen will be at hand. If he never needs that particular protection, he knows that his taxes go to help those who do.

QUESTIONS AND EXERCISES

1. On a page of your notebook draw a 6" \times 9" oblong and divide it into three equal divisions, each representing a unit of government. For each division write in all the means of protection that you can think of.

2. Some time ago it was announced in one of our largest cities that on account of a lack of money it would be necessary to reduce the number of policemen, firemen, and public-health nurses. What might be the result of this form of economy?

3. What is the difference between a bureau and a department when these words are used in connection with the government at Washington? Write out the names of as many bureaus as you can.

4. Be prepared to give a report to the class on one of the following subjects: *Registered Mail, Rural Delivery, Parcel Post, Money Orders, Postal Savings Banks, Dead Letter Office*. You will be able to get information from your postmaster.

5. Find out all that you can about the Federal Reserve Bank, the Federal Land Bank, the Home Owners' Loan Corporation.

6. Turn a page of your notebook with the long edge toward you. Draw as large an oblong as you can, still leaving a good margin, and label this *Government Welfare Work*. By means of four vertical lines parallel with the narrow end, divide this oblong into five equal columns. Label these as follows: *Unit of Government, Institution, Position, Some Advantage in Doing That Work, Some Disadvantage*. Beneath these labels make five spaces by means of horizontal lines parallel with the long end of the oblong. Fill in the spaces in regard to public institutions of which you know.

7. Make a list of the different people who are not admitted to the United States. In each case try to give a good reason for their exclusion.

8. Be able to give at least one example to show how the use of statistics might help the government to know how best to do some class of work for the welfare of the people.

9. Look up the following words in the dictionary and be ready to show the exact meaning of each one: *consul, counsel, council, counselor, councilor, consulate, councilman*.

10. What is the *Pure Food and Drugs Act*?

11. Define the following: *jurisdiction, marines, revenue stamps, conservation, employment bureau, exclusion, handicapped, pauper, linear, assessed*.

12. Trace an outline of a map of the United States for a page in your notebook. In the proper places write the names of our national parks. Report on one.

13. List the occupations that might be useful in connection with the TVA experiment.

CHAPTER XVIII

ENTERING GOVERNMENT WORK

The very essence of a free government consists in considering offices as public trusts, bestowed for the good of the country, and not for the benefit of an individual or a party. — JOHN C. CALHOUN

Three gateways. Do you wonder how one might enter this work which has so many opportunities? In 1932 there were reported 3,121,921 persons employed by the federal, state, county, and city governments combined. These include a great number of helpers in each division of each unit. Since the time of that report, the government has undertaken so many projects to help the unemployed in the country that the number working for the government has been very much increased. Three gateways lead to these positions: election, appointment, and examination. Work for the government is either military or civil service. Many officials are elected directly by the voters. These have the right to appoint certain people to work under them. The federal government was the first to require examinations of those applying for positions. These examinations are for the purpose of finding out who is best able to do the work. This method is called the merit system and was established by Congress in 1883. After the United States set this example some of the states, counties, and cities adopted the same plan.

The gateway of election. Many public officials are elected by the people. The only *federal* positions filled in this way are those of president and vice president, and of the members of Congress. Governors, state legislators, mayors, aldermen, sheriffs, county commissioners, state and city judges, state's

attorneys, and many others are elected. In fact, such a number of places are filled in this way that voters are puzzled when they try to choose from the candidates. For this reason many people are in favor of what is called the "short ballot." They would have the voters elect only a few of the most important officials, and would have the rest chosen either by examination or by appointment.

The gateway of appointment. The President appoints the ten members of his cabinet, ambassadors and ministers to foreign countries, and all the federal judges. The Senate must agree to these appointments. It is impossible to tell a young person how to prepare for such work. The holders of these positions are taken from among men of long preparation, and from those who have proved their ability after much experience. They have been chosen from lawyers, engineers, publishers, business executives, and other groups in which they have become known over the country. Each new president makes his appointments of cabinet members and ambassadors. Federal judges come from the ranks of lawyers. They are appointed for life.

In the states, counties, and cities many positions are filled by appointment. You may find out what these are in your own community. The officials who have the right to appoint are said to have the power of *patronage*. This power is the prize that influences many to strive for election. It is possible for a candidate for an office that brings patronage to get himself elected by saying to the voter, "Get so many votes for me and I will give you a job. Get so many more, and I will give you a better job." Would it not be better if all of these places were filled through examination?

The gateway of examination. Many types of workers obtain their positions in the various federal departments through examination. The largest employer is the Post Office Department. Among these government workers are stenographers, typists, bookkeepers, clerks, chemists, drafts-

men, inspectors, nurses, and teachers. These positions require the same preparation that one would need to work for any other employer.

Let us see what steps one must take in order to enter the government service through examination. In Washington there is a group of three people called the Civil Service Commission. These three with their helpers have charge of all examinations. For each kind of position a special



P. & A. Photo

Postal employees are sorting mail for delivery in all parts of the world. These men have passed civil-service examinations to prove their ability to do the work.

examination is given. It is given at certain times and in certain cities in various parts of the country. At any time by asking at the nearest post office, or by writing to the Commission you may find out about examinations, their place and time, and the salary for each position. Also, in post offices and in many libraries posted lists give this information. You must apply for the right to take your examination. You must write for an application blank and answer a great many questions. You must be a citizen, have good

health, must not have the habit of drinking intoxicants, and must have a year's clean record. Then on the appointed day you may try the examination which is made to show whether you are able to do the work for which you are applying. You may write for questions of former examinations to find out what sort of information you are supposed to possess. An eligible list is made of the names of those who pass, with that of the one with the highest grade at the top. When a letter carrier, a chemist, a stenographer, or other employee is needed, appointments must be made from the highest three in that list, and then down in order to the foot of the list. You may have to wait a long time for your appointment, and when you get it you will be on trial for six months. If you prove that you are able to do the work, you will get a permanent appointment.

Special branches of service. How to get into the *army* or *navy*, the *forestry* or *consular service* deserves a separate discussion. In the army and navy, any young man with health and a good record may enlist. If he hopes ever to become a commissioned officer, he must be trained at West Point for the army, at Annapolis for the navy. In order to enter one of these academies, he must be appointed either by his representative in Congress or by one of certain other officials. After his appointment he must pass an entrance examination. At his graduation he is given the rank of second lieutenant for the army and ensign for the navy, and may then rise gradually to the higher positions. The same general plan is followed in the aviation, marine, and coast-guard divisions.

Forestry has come to be a real profession. In many universities, particularly the state universities, there are now schools of forestry. Here one may be trained in the science and art of raising trees, and in all the many duties that belong to the management and protection of a forest. This service is entered by examination, and one may rise from ranger

and guard to supervisor and manager. Forestry calls for a strong, fearless type of man.

It is only recently that young men desiring to be consuls have been obliged to pass an examination. To prepare for this one should have a good general education, of college grade if possible. To reach the higher consular positions one must pass a second examination.

State positions. Each state has its own system of choosing employees. Officials of many ranks are elected, while most of these have the power of patronage. With such a system not only are jobs often given to incompetent people, but also those holding them are pretty sure to lose when another party comes into power. By 1935 only ten states had followed the example of the federal government in adopting the merit system. States have many of the same kinds of positions that the federal government has. They too must provide for protection, conservation, and highways, and must employ every sort of worker. The work for relief in co-operation with the federal government awakened in a few of the states the idea of the necessity for choosing helpers by means of examinations. At least one state even obtains from the government at Washington civil service examinations for use in selecting employees.

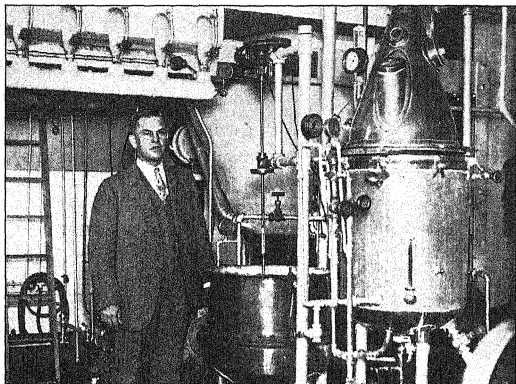
FULL-TIME GOVERNMENT POSITIONS

Civil service. Think first of the classified civil service or all those positions that are obtained by examination. For many of these you would not need to think about working for the government until you were ready to earn your living; for you would choose your vocation, such as stenography, mechanics, law, or teaching, and with your preparation, you could later choose your employer. If, however, you are interested in the post office, the consular, forestry, army, or navy service, you should decide as soon as possible in order to begin your preparation. This is especially true of

the last four. For the post office you would not need more than a general public-school education. There are many advantages in civil-service positions. The government has a ten-hour law, and you may not be asked to work longer. The work continues all the year round and is not seasonal, as you have found certain industries to be. If you do well, you are not likely to "lose your job" after you have once completed your six months of trial. Last of all, you may be sure of an income for the rest of your life. Congress passed an act in 1920 for this purpose. Civil-service employees, if they have held positions for at least fifteen years, may retire and receive a pension at the age of seventy. Mechanics, letter carriers, and post-office clerks may retire at sixty-five; and railway postal clerks at sixty-two. This probably seems very old to you, and you will find it hard to believe now that when you reach that age you may feel that you can easily work for ten years more. The government knows that this is sometimes so, for this law says that if these people are still valuable in their work, they may be kept if they wish. If they retire, they are paid for the rest of their lives a certain percentage of the salary they have been receiving. The percentage depends upon the number of years they have worked.

Political positions. Then there is the full-time work of those who have been elected or appointed. We say that these people enter "politics." They are interested in helping to manage some unit of government. Usually they start rather early trying to get an office. If the office comes by appointment, they may and probably will lose it as soon as a chief of another party is elected. If it comes by election, they may lose it at any new election time. They may stay in politics by getting into some other position, or they may be out altogether and be obliged to find some other way of earning their living. The uncertainty makes this life a real adventure. Running for office costs time, money,

and hard work. It is a real fight for success. One must work to be nominated, or named, and after that the real fight or "campaign" begins. The higher the office, the more work and the more risks. For instance, Charles Evans Hughes resigned as justice in the Supreme Court, in order to run for President of the United States. He lost, and had



© Underwood & Underwood

A definite preparation in engineering is necessary for this federal dairy chief. He is inspecting a milk-condensing apparatus.

seemingly given his time and position for nothing.¹ One must be good sport enough to lose well. Tricky methods are often used by politicians, and for that reason many high-minded persons refuse to have anything to do with politics. "Anything to win" seems to be the motto of many politicians. But there are other honest and fair-minded men who really want, like the Athenian youth, to leave their country

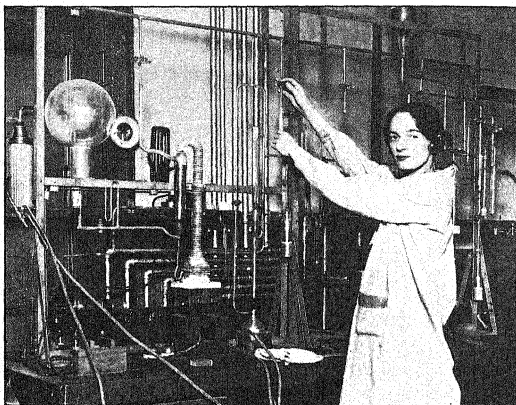
¹ In 1930, he was appointed Chief Justice of the Supreme Court by President Hoover.

better than they found it. In the presidential campaign of 1912 Theodore Roosevelt was temporarily disabled. Woodrow Wilson, the leader of the opposite party, abandoned his campaign until his adversary was able to enter the struggle again. Many leaders have lost because they stood up for what they thought was best for the country. The best hope for a democracy is to persuade such men to go into politics for their lifework. Because of the prominence of public men you can find accounts of the careers of more of those in politics than in any other occupation.

Part time. Many of these political positions do not take the whole of a person's time. Members of city councils, county boards, and state legislatures usually carry on a private vocation while in office. Of course, they would have to be in a business that allowed them a certain amount of free time, and many hope that in a short time they will get a higher political place that will take all of their time. There are also people who are so interested in the way governments are run that they give a great many of their spare hours to the study of public questions. They are always ready to get out and work hard at the time of a political campaign. Meanwhile they are working at their own vocation and do not expect ever to give their whole time to the state. These people often have great influence in public affairs.

Work for all citizens. In a democracy every boy and girl, man and woman should have some part in government. Everything that you do to make your community better is in a sense work for the government. If you help to keep your yard, the sidewalks, and the alley clean, you are doing work for your city. There are other ways even now, but as you grow older more opportunities will come. You will want good streets, good roads, good schools, and so on; and therefore you will be willing as you begin to earn money to give part of it for the public good. As long as taxes are

fair, no good citizen objects to paying them. But sometimes they are not quite just, and sometimes the money that comes into the public treasury is not used as it should be. Therefore as you grow older, you will see how very important it is to elect the right people to levy taxes and to handle the



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This girl scientist employed by the United States Bureau of Standards is trying to find the cause of airplane engine failures. She is using this apparatus to test vapor locks, a condition which causes an engine to stop for lack of fuel with a tank full of gas.

public money. You will have the right to vote for many officials, and this means that as a good citizen you must study what is happening in your community, what type of person is needed, and what type is running for office. Did you ever think that you are really one of the employers of all these people working for the government? You should begin now, even though you are only twelve or thirteen

years of age, to learn something about the workings of your government.

For girls and women. Since, by the nineteenth amendment to the Constitution, women in the United States have been given the right to vote, they have become eligible to all government positions. Eligible means that they may be elected or appointed. Already there have been women in both houses of Congress. Franklin D. Roosevelt appointed the first woman cabinet member when he made Frances Perkins Secretary of Labor. Women hold positions as judges, collectors of revenue, and mayors. According to law, women may take any examination that is given for civil-service positions. Since 1917 they have comprised about eighteen per cent of those examined. Legally a woman could be elected President of the United States. A girl has as much right as a boy to plan a career in government service. She has not quite the same chance, for many heads of bureaus and offices prefer to have men working for them, and will not appoint women even though they have passed the examinations. It is the same as in many other kinds of work; the really capable woman can succeed, but to do so she will have to work harder than a man in a similar position.

QUESTIONS AND EXERCISES

1. Have one member of the class write to your representative in Congress asking for information on the following points: To whom should one apply for an appointment to Annapolis or West Point? What sort of examination must be passed in order to enter? What other conditions of admission are there? How long is the course of training? What expenses would a student have? Mention at least five subjects that are studied here. How long must a graduate agree to serve in the army or navy? How does one prepare to become an officer in the aviation service, the coast guard, the marines?

2. Write to the United States Government and to your state government for pamphlets on forestry, on mines, on preservation of the soil, and on irrigation, and the draining of swamplands. This will mean ten letters that may be sent by as many members of the class. Be sure to address your letters to the proper department or bureau. From each answer a report should be made showing opportunities for working for the government in these lines.

3. Go to the nearest post office. Copy a list of twenty positions for which examinations are offered. What salaries are paid and what else is mentioned about the position? Tell in which one of the ten departments of the federal government each position belongs.

4. Write a letter to your state capitol, to the state civil-service commission, and ask how state government positions are filled, and what steps you, for instance, should take to be employed by your commonwealth. Only the best letter should be selected and sent.

5. On a page of your notebook, make four parallel columns. Divide these with horizontal lines into twenty-one divisions. Label the first column *Positions*, the second, *Examination*, the third, *Election*, and the fourth, *Appointment*. Fill in the spaces in the first column with the names of twenty government positions of any unit. According to the way that this position is filled, put a mark X opposite to its name in one of the three following columns. Choose the positions so that at least six will be checked in each column.

6. Write an imaginary story of a day's work in some government position, other than one you mentioned in Exercise 5.

7. From an American history find out what is meant by the "Spoils System." What President believed in that system? When was the merit system begun?

8. From some recent almanac of information for your state, find out whether there is a state, county, or city civil-service commission. Be ready to give all the information you can find about any of these.

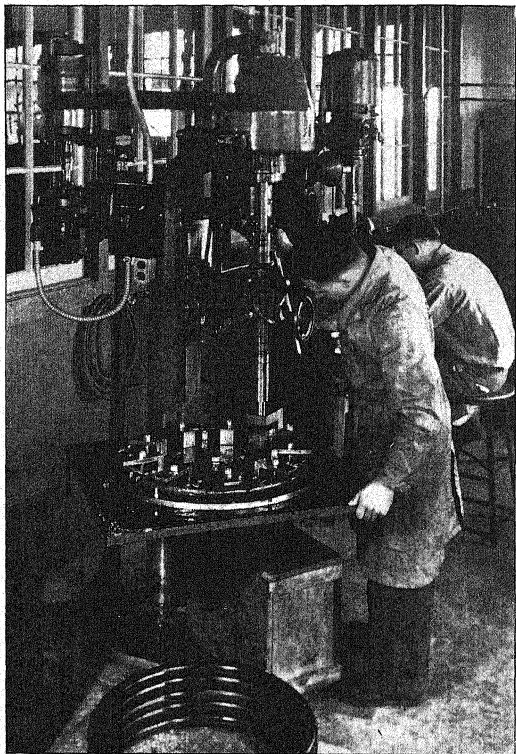
9. Make a diagram of a ladder. Let each rung represent a step that a man who now has a high civil-service position must have taken. Label each step. Let the last represent the time when the person may be pensioned.

10. Look up the life of one of our recent presidents, of the governor of your state, the mayor of your city, or any other public elected or appointed official. Now make a ladder showing the steps that he took to get his present position.

BOOK FOUR

YOU AND YOUR ADVENTURE





Courtesy of United Air Lines

Lives are dependent upon somebody's doing the common things well. This man's task is to direct the machine which grinds the interior of engine cylinders.

CHAPTER XIX

LEISURE TIME

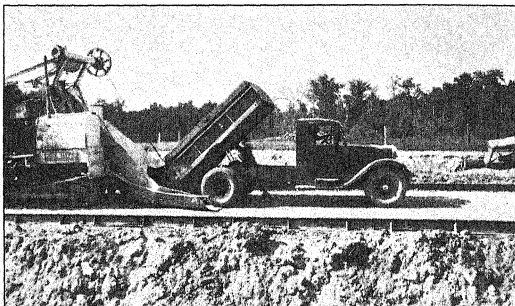
Life . . . may be sad: but to a right-minded man or woman there is one thing it can never be — it can never be uninteresting. —
LEBARON RUSSELL BRIGGS

In some ways the adventure of living has never been so interesting for any generation as it will be for yours. Within the last fifty years books have been written describing a way of life which seemed to the readers of that time like the fancies of the writers of fairy-tales. Strangely, though, much that at that time was considered an impossible setting for an imaginative story is now a common experience in your everyday life. For instance, one was thrilled when reading of the opening of a door without the aid of a human hand. Now many a garage and electric elevator door will accommodate you in that way. You turn a switch in a cabinet in your room and in a few seconds you hear beautiful music from the other side of the world. In many homes the housewife can do her work in a fraction of the time that her mother spent at the same tasks. The old stories would have told you how she rubbed a magic ring while the dust was being sucked out of her carpet, how she called a spirit and her clothes were washed in the big tub while she sat and visited with her friends. Everywhere today similar changes are going on, in the factory, on the farm, in transportation.

Your problem. You are to choose your lifework and to plan the right preparation for it. But this new way of life, these discoveries which seem to be the fairies that lessen man's work, are going to cut down the hours of your working week. Your grandfathers spent ten or twelve hours a day

at their work; your fathers probably spent eight; no one knows how much shorter your working day will be. What will you do with your added hours of leisure? Machinery is making it possible for you to have much that is interesting in your life.

An avocation. Many people choose an avocation for their leisure time. The word *avocation* comes from the Latin *vocare* meaning "to call," plus *a* meaning "away



Courtesy of International Harvester Company

Not only does machinery make possible the building of a highway in less time with fewer men, but also the highway thus built will be used by many people in their leisure time.

from"; it is something that calls one away from other interests. We sometimes find it with the meaning that we generally give to vocation, work to which one devotes oneself or by which one earns one's living. Usually, however, we make a difference between the two words. We speak of vocation as the work that calls us to it as our life-career, of avocation as an occupation that calls us away from the strain and weariness of our money-earning work. The more enjoyment and satisfaction you derive from your vocation, the less will you feel the need of an avocation.

If you choose both a vocation and an avocation, you will have two definite lines of activity. One calls you to a gainful occupation, the other calls you away to an interest that helps you to relax. If you choose an avocation, you will concentrate in your leisure time on some one interest, and will get your pleasure in developing skill and knowledge in that line. Any line will be interesting as long as you can gain more knowledge and develop more skill. Did you ever think of how much there is to learn about sailboats? Can you define transom, sheet, gaff, boom, and yard? A doctor took sailing as his avocation. He not only learned the terms and the theory of sailing, but also he even built a fifteen-foot sailboat in his basement, and did it so well that he actually sailed it out into one of the Great Lakes.

Often the very occupation which is a vocation for one person may be an avocation for another. The one who uses the occupation as a vocation is called a "professional"; if he uses it as an avocation, he is called an "amateur."

Even though you choose an avocation for the fun that you can get from it as an amateur, perhaps because of your good work it may become your profession. A young man who had always been interested in amateur photography spent much of his leisure time with his camera and grew in both skill and knowledge. He joined and took an active part in a camera club. His vocation was banking, in which you have learned that progress is always slow. His bank decided to install a department for the photographing of checks. The expert who came to advise asked whether a man had been chosen to take charge of that department, "because," said he, "if you haven't made your selection, I know just the man. In fact, he is one of your own clerks and the most skillful member of our camera club." The bank accepted his recommendation, finding that they simply had to transfer one of their good clerks to this responsible position.

Most people spend their leisure hours puttering with this thing and with that, thus finding relief after hard work. Perhaps they just wish to be amused or to waste time. If they do only this, they do not grow or get any lasting happiness out of life. But even though they have no other interest strong enough to make an avocation of it, they may find worth-while pleasures for their leisure time. Henry A. Wallace said in an address to farmers, "I think that all men and women should have the chance to do and think and dream as they please part of the time; not for money, not for fame, but simply because they want to." While you are young you should begin trying out various hobbies. Your interest may be in playing some game or in some kind of collecting. But whatever you do, be it avocation, hobby, or recreation, plan for it definitely. If you become interested in something else, you may change, but plan and prepare and begin. Design your leisure time!

QUESTIONS AND EXERCISES

1. On a page of your notebook, draw lines for four columns. Head one of these columns *Avocations*, another, *Recreation*, a third, *Amusements*, and a fourth, *Hobbies*. Draw fifteen horizontal lines across the columns. Fill in the spaces under "Recreation" with names of diversions that you think should come under that head. Think over these carefully, and if they would make suitable avocations, write them in the column so designated. If they are fitted for temporary amusements, write them in the column with that heading. Fill in all the spaces in the four columns.

2. In order to see where an avocation comes into one's life, try making a budget of your time after you have started to work. Imagine yourself in some business, profession, or trade. You have before you a perfectly good day of twenty-four hours. Make a schedule like the following, filling in the number of hours and adding anything that you think necessary.

FOR FIVE DAYS IN THE WEEK

How Fill Time	Number of Hours
Earning a living	8
Sleep	8
Meals	
Dressing, etc.	
Getting to and from work	
Balance	

FOR SATURDAYS

Earning a living	4
Sleep	8
Meals	
Dressing, etc.	
Getting to and from work	
Balance	

FOR SUNDAYS

Sleep	8
Meals, etc.	
Dressing, etc.	
Regular appointments as church, etc.	
Balance	

Now fill in the remaining spaces. Some time should be used for incidental duties, but you will still have time left for amusement and recreation. If you use most of it for one form of activity, you may call this an avocation.

WHY AN AVOCATION IS VALUABLE IN YOUR ADVENTURE

You will probably say, it may be necessary to work, but why trouble oneself with definite plans for something else when the day's work is over? We shall, therefore, try to find the value of the "quest for an avocation."

Develops ability. Have you in your mind a picture of the home life in early times, say in the colonial days of our own country? There was more activity in the house than there is now. Much of the furniture was fashioned by hand by the men of the family, the rugs were woven by the women. Every old house has its spinning wheels and looms, its molds for fashioning candles, its churns for making butter; indeed most of the articles in these places that so fascinate us at the same time remind us of a kind of work done by someone in the house, work that we have neither the skill nor the knowledge necessary to perform, work that is done for us by someone outside of our homes. We shudder to think of how hard even the children were obliged to work. But they gained one thing which we miss. They were acquiring skill with their hands and ingenuity in planning. Even our vocations, nowadays, do not develop us as theirs did; for much of the work of the world is so divided that the kind of task any one person must do is very simple indeed. If we do not want to go through life knowing how to do only one thing, we must find some way of developing our ability outside of our regular working hours. Are you planning to be a comptometer operator, or a bookkeeper, or a salesman? What a queer one-sided sort of person you will be if you learn nothing more! Even monkeys, dogs, and horses can be taught to

do certain things excellently. You do not want to be merely a trained animal. Then you must have interests outside of your regular work.

Better work in vocation. Another good thing about an avocation is that it makes you better able to do your regular work. You use a certain set of muscles or exertions or ideas in your vocation. Your avocation should be something so different from your vocation as to cause you to relax all of that one sort of strain while you give your attention to another. Both your health and your work will be better for the change. A hobby has often saved a person from breaking down from the strain of his work. In more cases it has enabled him to do better work in his vocation. The new scientific management has proved that a man can do more and better work if he leaves his regular task and does something entirely different for a time. Working in a garden may make you a much better bookkeeper.

A cure for boredom. When you stop to think that if you try hard enough you may find both a vocation and an avocation to your liking, do you not wonder that people can talk about doing things "to pass away the time," or "to kill time"? Why kill it when there are so many ways of using it? Many people think of their work as a burden and their leisure hours as so much time that must be killed. That gives us a most unhappy picture of life. If people who feel that work is a burden would choose a vocation for which they are adapted, it would solve half the problem; and if they would choose an avocation which they could enjoy while they forgot themselves, they would be saved from the dreadful calamity of being bored.

Interest after retirement. Not only is an avocation an asset because of its development of ability, but it is also an insurance against a certain tragedy that comes to many people in later life. Men, in particular, often become so busy in their vocations, or so in the habit of doing just one

thing that when the day comes for them to retire, and all their time is leisure time, they do not know which way to turn. If a man has a hobby which he follows in his leisure time, not for money but for pure pleasure, he will have something to do when his vocation is taken away from him.



P. & A. Photo

We know that boys like camping expeditions, but so do the grown men. Preparing a meal out-of-doors is a real pleasure to these newspaper men.

For example, a man had worked as teller in a bank until he was sixty-five years old. According to the rules of the bank, he was obliged to retire on a pension. The bank had a farewell dinner for him, and gave him a watch to show their good feeling. Only two days after his retirement began, this man became very ill and was taken to the hospital. After he had been examined carefully, the doctor's diagnosis was "Nervous breakdown because his work is gone." An avocation would have given him something interesting with

which to fill his time, but at sixty-five it was too late to start.

Keeping the balance. Finally, you must learn to keep a good balance between your vocation and your avocation.

"All work and no play makes Jack a dull boy."

"All play and no work makes Jack a shirk."

Substitute vocation for work and avocation for play, and you will have the idea. The American business man is too likely to be all vocation; the ne'er-do-well is likely to be all avocation. The well-balanced human being will consider his vocation his first duty, but will have the courage to set apart a goodly amount of time for his avocation.

QUESTIONS AND EXERCISES

1. On a page of your notebook, draw parallel vertical lines to make four columns. Across the top write, *Where I May Develop Ability*. At the head of the first column write, *Vocations*, of the second, *Outside Duties*, of the third, *Play*, and of the fourth, *Avocations*. Now in each column list special skills that might come from the source named at the top. Would an avocation be worth while for this purpose?

2. On a page of your notebook, draw parallel vertical lines to make three columns. At the head of the first column, write *Vocations*, of the second, *Age of Retirement*, and of the third, *Avocations*. Under these draw ten parallel horizontal lines one half inch apart. In the spaces thus formed in the first column, list ten occupations. After each in the second column, state at what age a person in that occupation is likely to be obliged to retire. In a third column, suggest an avocation that might interest a person after his retirement from that occupation.

3. Another name for avocation is "hobby." Think of some hobby and tell whether it would fulfill the reasons given for having an avocation.

OLD AND NEW IDEAS

In ancient and in medieval times only a certain class of people had an opportunity to cultivate what we now call avocations, while the majority had to toil and drudge to provide the necessities of life for themselves and for this class, which we call privileged.

Greek civilization. In Athens the slaves did the hard labor and provided the necessities of life for the rest of the people. They had no time for an avocation; they had no opportunity to develop their abilities; they could not look ahead to a time of retirement; and no matter how much drudgery there was in their work, they must keep on drudging as long as there was life in them for that purpose. The play instinct was crushed out of them. At the same time, another class of people, the citizens who controlled this "democratic" state, had no need to choose a *vocation*, for their work was to manage the state. They had time to give to activities which might well be called avocations, the most wonderful that the world has ever known. Never have there been such athletes, so perfectly developed physically. These citizens had time for beautiful dancing, for painting, for music, for sculpture, and for architecture. They wrote and enjoyed good poetry and no theater has ever been better than theirs.

Middle Ages. In medieval times there were serfs on the big estates of the lords. These men took care of the hard work that provided comfort for the nobility. They tilled the fields and ground the grain at the mills. They became the artisans who made the armor, the furniture, the clothing, in fact, everything that the lord needed. These same lords usually had just one vocation, warfare. The pastimes of the lords were much like their vocations, mock warfare or tournaments, and the hunt. Part of the drudgery of the peasants consisted in helping their masters in their recreations. So you can see that in Athens and in medieval

Europe work and play did not so much make up two parts of life for most people, but one whole class of people did most of the work, while another class had most of the play.

Today in America. Now, in America, practically all of us are engaged both in making a life and in making a living. The two sides of the adventure belong to the same person. Even the poorer working people have definite, and, as compared with older times, rather short hours. There is time for an avocation, for something that makes life richer. Our wealthy classes often work as hard at their vocations as do the poorer people. We are in a position to choose carefully both parts of our life.

SOME SUGGESTIONS

Animals. A fine hobby in this adventure is that of making friends with animals. People who are fond of pets can learn to play not only with dogs and horses but also with bears, deer, and monkeys — with birds, squirrels, and even with snakes. If you live in a city apartment with no out-of-doors of your own, this would be a difficult hobby, but even then you could spend your leisure time in the parks and could learn a hundred habits of the animals there. If you are fortunate enough to have some out-of-door space for pets, you can have no end of fun with whatever animal friends you are able to get. One man, a decorator, gets joy out of his leisure time in studying animals. He can watch a frog for hours until he knows every motion that the creature makes. Another man and his wife have succeeded in training many kinds of birds and beasts. This man already has his plans made for the time when he will retire. He has bought an acre or two on a lake in the north woods. His "animal hobby" will keep him busy when he no longer has strength for his vocation.

Athletic pleasures. Most young people give so much thought to tennis, baseball, swimming, rowing, and the like

that you have probably heard everything that might be said about such avocations. They belong to people who like to exercise physically and who love to be out-of-doors. But perhaps you have not thought of taking seriously such a thing as hiking. Many people make a real art of walking tours. They learn just what equipment they need and the location of interesting places to visit. In California, a group of such folk who like mountain climbing is called the "Sierra

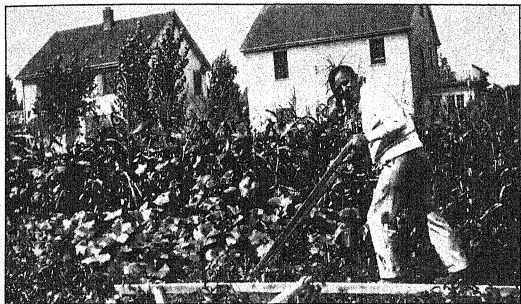


The hobby of these young people is hiking. They take their musical instruments with them.

Club," and in the Middle West a company of hikers is known as the "Prairie Club."

Adventures in gardening. Another out-of-door avocation is gardening. Happy is the boy or girl whose parents allow him a few feet of ground to play in — play as we are using the word now, *i.e.*, to make an avocation. A young lady, a doctor's helper in a big city, is often to be seen on Saturday afternoon and Sunday working in her back yard, a place about fifty feet square. In certain corners, she has planted

flowers. With her own hands, she built a trellis for a grapevine. She keeps the grass cut and the bird bath filled. She has obtained large stones and has built a rock garden from the crevices of which little flowers push their way out in the spring. With all this she has found room for a few vegetables. She has developed skill of hand and cleverness in planning, and is happy with the living, growing things in her back yard.



A person need not hunt far afield for an avocation. This man is enjoying exercise even in his own back yard. What kind of garden would you like just for your own recreation?

A person who does not care for the physical pleasure of doing such work himself may enjoy making a hobby of learning all he can of the flora and fauna in the forest preserves or in places where he spends the summer. One man whose vocation was that of a janitor in a building of a large city became, during his leisure hours, such an authority on botany that people came from a distance to consult him.

The world of science. Indeed, specializing in any science may become a joy to one who is really interested. Why not try astronomy? Learn what constellations to expect and

where to look for them. Learn to explain the causes of the tides, eclipses, meteors, and other phenomena. With such an interest you will forget the little things and the people that annoy you.

In one kind of science, you learn to specialize and to know, and in another you learn to specialize and to do. Does physics interest you? Then why not make a hobby of mechanics or of electricity? This age of the world has supplied a new set of accomplishments for our hands, accomplishments of which the colonial age with all its activity knew nothing. Perhaps you did not know that your high-school physics would lay a foundation for this form of enjoyment.

Painting. Few people are capable of earning their living through the fine arts, that is, by choosing one as a vocation. Even with the highest ability one is not always sure of making money in these professions. But as an avocation it would be hard to find a more delightful field. You yourself do not need to perform in order to choose art for an avocation. Your hobby may consist in haunting art galleries, finding out what artists of different periods have tried to do, and forming your own idea of how far they have succeeded. You may enjoy comparing the aims of various artists. Then there are certain values that should be found in the work of all good painters or sculptors. These it is interesting to look for until you get a feeling for the best results. Then, to crown it all, it will add to your happiness to be able to enjoy beautiful pictures. You will be living in a world that you never before knew existed. It is one of the best of the avocations.

A little performing of your own, too, as an amateur, not only is a joy in itself, but also helps you to appreciate what the really great artists have done. We are not getting so much of that kind of joy nowadays as people did some years ago. In the stories of the Brontë sisters, of Jane

Austen, and of Anthony Trollope, young folks got a great deal of pleasure out of sketching out-of-door scenes, likenesses of their friends, and so on. Perhaps we are too busy making money, but we are losing something in the exchange. Human beings have what we call the creative instinct. Many of us can never satisfy that instinct in our vocations. Art as an avocation helps to supply this opportunity. Did you ever think that enjoying and working with

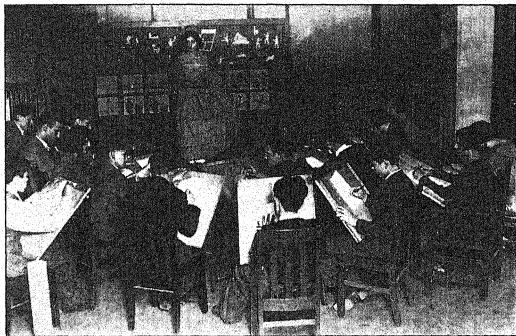


Photo by C. O. Drueschel

The members of this art club are getting real enjoyment out of doing creative work. Who knows but that some, through work here, may develop an interest leading to the field of commercial art or even beyond?

the arts is one thing that puts us on a higher level than the animal world?

Music. All that has been said of painting may be said of music. If you care to learn to perform a little yourself, you will increase your appreciation. With the wide variety of programs over the radio today a boy or girl may train himself to enjoy hearing the best that has been composed. Let the radio supplement your class in music appreciation.

Singing. If you like to sing, choose singing for your hobby. Doubtless you can find a chorus or a glee club that you may join. You will enjoy swinging into the rhythm with the others, and you will develop a power of breathing that will keep you strong and vigorous.

Dancing. A musical person enjoys the rhythm of dancing. Here also there is a high type and a low type. The lowest savages, even some animals, dance, but those who seek the highest will bring this up to the level of a fine art.

Adventures by proxy. Reading fills the leisure hours of many. Reading the cheap stories of the newspapers, however, is an amusement rather than an avocation. If you would make it an avocation, you must cultivate a taste for the best that has been written by the best writers in the history of the world. It takes real work to learn to enjoy these, but the reward is far greater than the work. One woman set out early in life to make herself a good judge of books. This became for her an avocation and besides it brought to her the companionship and friendship of interesting people. Another advantage of this avocation is that one can always fall back upon it if illness or misfortune comes. It is a unique hobby in that you can take it with you wherever you go. An hour's wait in a lonely little railway station would soon pass if you could go on an adventure to *Treasure Island* with Stevenson.

Our title calls this avocation "adventures by proxy." When you were a child, you had many adventures in that way. You played with tin soldiers, or dressed in a cowboy suit and imagined you were having the real experience. As you grew older, such things seemed a little foolish, but you can have a wonderful substitute if you learn to understand reading. When you have learned how, you may have exciting enough adventures with Sir Walter Scott, or Thackeray, or with Shakespeare. They will take you into worlds that you never could have imagined by yourself. One business

man who has this as his avocation spends much time in bookshops and discovers delightful books that most people do not know. He talks about Dickens's characters as though they were his intimate friends. Think what a certain bright high-school girl is missing when she says, "People who pretend that they like to read give me a pain. They should be playing tennis." Reading does not keep one from playing tennis, but refusing to read shuts out from one a wonderful adventurous world.

Friendship by proxy. In connection with art, music, science, literature, statesmanship, and indeed with almost any of the great things of life, your hobby may be that of knowing the finest and the greatest men and women. This may not be knowing them face to face, but knowing them through what they have written or done and through what others have said of them. Read the biographies of great men and women, and you will be surprised at the richness of the friendship. Often you will meet them in your reading, in the talks that you hear, and in your conversation with the finest people. You will be glad to say to yourself, "I know that man. He was interested in so and so. He has this idea about government, this about life, and so on."

Travel by proxy. Travel is to many people the most delightful avocation imaginable, but we are likely to think of it as a joy belonging only to the wealthy. This is by no means necessarily so. In the first place, one may travel for years by proxy. There are marvelous and numerous books, for children, for youths, for grown-ups. If you devour the pictures and the reading in these, you will almost possess the magic carpet that can carry you wherever you wish to go whenever you stand upon it. You may go with Du Chaillu to the land of the long night, or to the jungles of Africa. You may have fun abroad with Mark Twain. You may travel over much of the face of the earth with Stoddard. Then there are Franck, McGovern, and a

host of others. The *National Geographic Magazine* will carry you by means of pictures to all parts of the world. Interesting people, cannibals, Chinese priests, Hindus, northern fishermen, all kinds and conditions with their quaint habits and the peculiar scenery of their region will be a part of your picture. At any moment you may shut your eyes and think of these things.

Not only books of travel, but also much of the best fiction will transplant you into another region. Then, perhaps, if you live in a large city, you can hear such men as Newman or Burton Holmes. But no matter where you live, you can go to many parts of the world by way of the motion picture. Get the habit of drawing out in conversation people who have been to other parts of the world. It is more interesting than gossip and will enrich your life.

But it is not necessary always to travel simply by proxy. Even on a small income one can save enough to go much farther than he thinks. All of your proxy traveling will teach you how to go about reasonably. Sometimes you can earn a trip by persuading a certain number of people to go with a party. This you can do the more easily if you have learned the delight of traveling through your reading. You will be like a salesman who knows his goods. And one trip abroad will give you delightful mental pictures for years to come. What more thrilling avocation could one have in his adventure? Because of your "hobby," your whole world will be different from that of the ordinary tourist.

QUESTIONS AND EXERCISES

1. Look through William S. Davis's *A Day in Old Athens*, or Harold W. Johnston's *The Private Life of the Romans*, or Tappan's *When Knights Were Bold*, to see if you can find something of the pastime or recreation of the people. Now choose something that might be called an

avocation of either ancient or medieval times and be ready to report on it to the class. Use diagrams if that will help.

2. What do you like to do on Saturdays? What, in your summer vacation? What hobbies have you?

3. Go to the library and read an account of some animal by one of the following writers: Kipling, Fabre, Seton-Thompson, Jack London, Vernon Kellogg, Helen Keller. Be ready to tell the class this story and show how a knowledge of, or friendship for, animals may supply an avocation. If you have a camera, take some pictures, and for your share of the program bring them and talk about them.

4. Pick out some poem or book that you have studied in a literature class, or a worth-while one that you have read at home. By telling its story, take the class to some other region, introducing them to new scenery and new people.

5. Plan the equipment for an amateur hiker. Make a list of interesting routes for two- or three-hour walks, starting from your school. Plan a constitution and by-laws for a club organized for the purpose of walking.

6. Find a list of constellations and put them on the blackboard. Each member of the class should choose one, and should make a study of it either in a book on astronomy or in the encyclopedia. On a page of your notebook, indicate the positions of the stars in your constellation, and write at least a half page about it.

7. Prepare two columns in your notebook. In the first list all the sciences that are taught in high school. In the second, write after each one an avocation in which it would help.

8. Divide a page of your notebook into five columns. Label the first, *The Arts*. Label the second, *Can You Perform?* Label the third, *Can You Appreciate the Best?* Label the fourth, *School Work That Would Help*. Label the fifth, *Other Ways to Develop in This Art*. Under these headings draw parallel horizontal lines across the page,

making spaces about a half inch in depth. Fill in these spaces appropriately.

9. Read Henry Newbolt's poem, *Vitae Lampada*. Explain his line, "Play up! play up! and play the game!" in the light of the avocations just discussed.

10. Choose some great person such as Plato, Leonardo da Vinci, Goethe, Napoleon, Gladstone, Beethoven, Shakespeare, or Darwin. During the following week, go to the library frequently and find out everything you can about him. Make an outline with such headings as: His Friends, His Achievements, His Knowledge, His Amusements, His Ideas of Religion, His Politics, and finally, My Feelings towards Him. Have the outline ready for one week from today, and for the second day thereafter, write a paper entitled *My Friend So and So*. He may be your friend even though you do not approve of him in every particular. If you choose the acquaintance with great people as your avocation, it will not be necessary to write a paper about each one. This exercise will show you how delightful it is to know such people, for through the years you will come to know many better than you could possibly know one in a week's time.

11. Examine a folder of some travel bureau. Show by detailed example how some of the sort of reading mentioned here might make certain parts of the trip described more interesting. For example, you have read stories of the fiords of Norway, of how the terrific whirlpools have swallowed up the boats of Norse fishermen. You have also read of climbing bleak mountains, of finding delicate mountain flowers. Now imagine you are reading the outline of a trip that is to show you the country of Norway. To some people the fiords will mean only an unusual formation and combination that results in this particular appearance of the water. To your imagination will come the tragedies of which you have read; you will be thrilled by thoughts of the heroism of brave rescuers in these spots; you will look for the mountain flowers that have the hardihood to come out in such places.

12. While you are in school, your vocation is to get an education, but even now every boy and girl should have an avocation. You may often find a chance for this in a club right in your school, or it may be something in your home or in connection with your church or with a group of friends. Perhaps you could have your own little chemistry laboratory or a garden, or carpenter's bench. Suggest ten hobbies from which you might choose.

13. List several ways in which people spend their spare time which get them absolutely nowhere. Then list as many others that enrich life, and explain how. Do not forget that pure fun may enrich your life. A game develops skill. Playing with animals helps you to understand nature.

14. Read Kipling's *The Maltese Cat*, from *The Day's Work*. Be ready to give three talks.

a. How animals may become a hobby.

b. How athletic sports may be a hobby. Describe the game of polo.

c. How watching the sports may become a hobby.

(Tell what one learns from each and what traits may be developed.)

15. Explain the quotation at the beginning of this chapter in terms of "avocation."

CHAPTER XX

TRAINING FOR THE ADVENTURE

In athletics, in music, in study, in business, we "train" ourselves toward the free exercise of our best powers, toward the joy that comes of mastery. — LEBARON RUSSELL BRIGGS

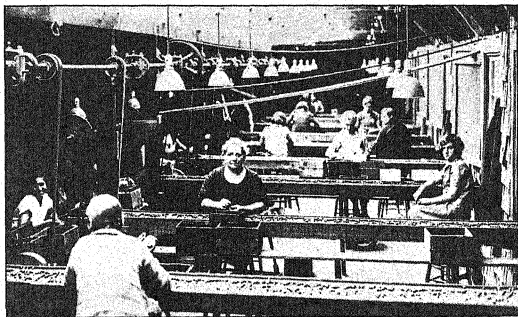
THE NEED FOR TRAINING

Wise men have given us many reasons for getting an education. The most important reason is that it makes one better able to meet the adventure of living; but since we are studying especially about the adventure of working in an occupation, we shall try to find how an education can help us in that. We should not expect much from a football team that had not had a great deal of training. An untrained team is soon discovered on the gridiron. An untrained workman is soon discovered in his occupation.

Training on the job. Your grandparents may tell you that the best way to prepare for an occupation is to get a job, begin at the bottom, and work up, for when they were young that was often the only way. A boy wished to become a carpenter; he worked by his father's side and learned his trade. A girl wished to teach; she "got a school," and tried to follow the example of her own teachers, and learned a great deal by experience. A boy learned to be a lawyer by "reading law" in an attorney's office, and a manufacturer started to work very early in life and grew up with the business.

Training in school. There are several reasons why this is not such a good plan today as it used to be. First, it is harder to get started in any kind of occupation than it ever

was before. Employers have so much difficulty in selecting applicants that in some places only eighth-grade graduates, in others only those who hold a high-school diploma, and in still others only those with college degrees are considered at all. When business men are questioned about the opportunities for young people in their work, many of them give the same answer: "Yes, there are chances for bright young people who have finished high school." Second, men in

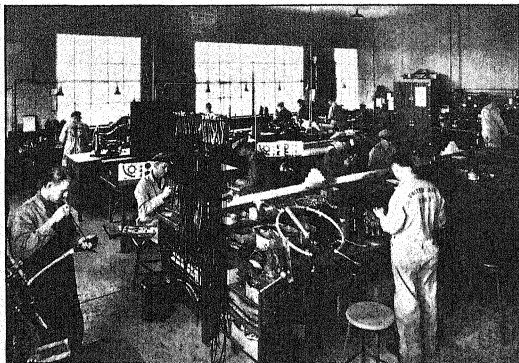


P. & A. Photo

Cranberries are raised on extensive bogs. These women, young and old, are sorting the berries which are constantly passing on belts before them. They learn to do this work in a short time on the job.

business tell us that boys and girls who have been longer in school learn the things necessary for their work, even while they are working, more quickly than do boys and girls who have left school earlier. Statistics show that this is true. High-school graduates go ahead faster than those who have not attended high school. Third, better prepared people are more likely to hold their jobs in time of industrial depression. An investigation made in one city in 1930, when thousands of workers lost their jobs, showed that the

first boys to be dropped were those who had not taken trade courses in school. Fourth, if you wish to go far in your adventure, you must have the best possible general foundation and special training beyond high school. An architect who has attained some distinction regrets that he took his architectural training without first having taken his college degree. He feels that he could have gone much farther in his work if he had had that foundation.



Courtesy of United Air Lines

In contrast with the picture on page 329 this one represents workers who needed special training before they started this work.

QUESTIONS AND EXERCISES

1. Have you ever felt "the joy that comes of mastery"? This might be in play, in work, or in study. Describe how you gained the mastery and your feelings before and after.
2. What does a person gain by taking swimming lessons? Could he learn as well by jumping into the water and trying again and again? With no instruction, do you think you could win in the Olympics?

3. Ask three people how they were prepared for their occupations. How many years ago did they start work?
4. Find how the Chinese used to be educated for public office and how that method has changed.
5. Look up the word *statistics*. Explain it as it is used in this chapter.

HOW SCHOOLS HAVE GROWN

Education among primitive people. The chief necessities of life are food, clothing, and shelter. When we speak of earning a living, we mean doing work for which we receive money with which in turn we may buy these necessities. Primitive people had to earn their living, but in a more direct way. They went hunting and fishing for food, made clothing from fur and leather, and found their own materials with which they built their shelter. There are such primitive tribes today in Australia, in Africa, and in the Eskimo country of North America. The youth in these tribes learn to earn their living, but it is neither in schools nor in workshops. They learn chiefly by imitation. Even as children, their games are imitations of their elders' method of getting the necessities of life. The boys have small weapons and practice at shooting, and go out with their elders to watch their methods of capturing their prey. The Eskimo boys watch their parents as they prepare blocks of snow and ice to make their igloos. So in a simple way the primitive boy learns to work for the few necessities of life, — for his living.

In ancient Athens. In Greece we see a more attractive picture of training, but it does not have much to do with earning a living. Education in old Athens was for the male freemen, so that nine tenths of the people were shut out from this training. The schools were for the citizens, and their especial purpose was to make good citizens. One aim of the schools was to make the youth perfect in body. So there were many games, gymnastics, and much military training,

and these brought good results. The youth learned about the state chiefly from conversation with older people who had had experience. Then they were taught history, poetry, and music, because these made life more beautiful. Their training was from the age of seven to twenty, the last part of which period was spent in military training. They became citizens and spent their time serving the state. The other nine tenths did the work that was necessary to provide food, clothing, and shelter for the citizens. There were no training schools for them.

In the Middle Ages. In feudal times boys and girls were trained for their lifework; they became knights by serving first as pages, then as squires; and the craftsman learned his craft through apprenticeship. There were universities, too, in the Middle Ages, and here boys were trained for certain professions, such as teaching, medicine, or law. The work of these students resembled somewhat the system followed by apprentices: for seven years they were taught the foundations of learning; then they became something like journeymen and taught the younger boys. After about seven years more they were ready to be examined for a degree and could become masters.¹

In early modern times. Even in modern times, education at first was chiefly to train boys who were to become religious and political leaders. Three hundred, even two hundred, years ago it was the upper classes who were thus trained for church and state. Then gradually changes came. Little by little in different countries the common people came to have more and more to say about the government, and it was felt that those who had a part in ruling must be educated.

Training for work. As far back as the sixteenth century it was said that boys should spend one or two hours a day in school and should learn a trade at home. Then the hours of

¹ See Chapter I.

school were lengthened, more and more studies were added to the course, but principally with the idea that good citizens were to be made in the school and that they should be trained for their vocations outside of school. In recent years, however, we have come to feel that one is a better citizen if he works well in his occupation, and if he earns enough to be "economically independent," that is, to support himself and his family. Germany and France took the lead in training in schools for occupations; now the United States is doing a remarkable work in this field.

QUESTIONS AND EXERCISES

1. Could you learn to do your father's kind of work by watching him day after day without any special kind of training?

2. Would a friend of your father's be willing to take you as an apprentice for seven years, and thus teach you his occupation?

3. Can a skilled mechanic be as good a citizen of the United States as the freemen were of old Athens? How can he learn to understand our system of government and his duty toward the state?

4. Explain how you can help your country by being a good worker.

5. Draw a 10" \times 5" oblong like the one below. Make the vertical divisions with the headings indicated. In each column tell how the men named above were trained for the principal responsibilities that they had to meet.

PRIMITIVE MAN	THE ANCIENT ATHENIAN	THE EUROPEAN IN THE MIDDLE AGES	THE MODERN AMERICAN

VARIOUS KINDS AND GRADES OF SCHOOLS

In most states a free education is provided for all citizens of from five to twenty-two years of age or more. When we say free, we mean that no charge is made for the instruction nor for the use of the equipment. In some schools, even the textbooks are furnished. In the colleges, even though various fees are charged, these do not compare with the high price of tuition in private schools. A child may start at the age of five in the kindergarten. He may go through the grades, the junior high school, the senior high school, and, in some districts, the two years of junior college. He may attend a state normal school, a state agricultural school, or a state university. All these are supported by public money.

Private vocational schools. You have come to the point now where you should consider carefully whether you will continue your preparation in a public high school or whether you will choose a private school for special training in your occupation. In most papers and magazines you will see the advertisements of many private schools. If you will read these advertisements, you will find that they offer to train you, some for business positions, some for trades, and some for the professions. No book can possibly tell you which of these schools are good and which are not, for there are many of both kinds. Here is a problem that you must work out if you are to get the best possible preparation for your life work. You may wish to become a stenographer, a skilled mechanic, or an expert salesman. An advertisement tells you of a school that will prepare you in a very short time. On the other hand, you might continue through the senior high school and find there a chance to prepare for your chosen occupation. How can you decide which is best?

To make a decision of this sort, you should consider all possible advantages and disadvantages on both sides. Here are a few of these :

	PRIVATE VOCATIONAL SCHOOLS	PUBLIC VOCATIONAL SCHOOLS
ADVANTAGES	<ol style="list-style-type: none"> 1. A shorter course. Every minute of the time is given to preparing for one's occupation. 2. A union card. Many of the trade schools are run by the unions which require such training before issuing a union card. 	<ol style="list-style-type: none"> 1. Less expense. One has no tuition fee and often no expense for books. 2. General education. One studies history, English, science, and thus finds much that is useful though not directly connected with one's occupation. 3. Extracurricular opportunities. One may take part in athletics, in musical, debating, and other clubs, and also may have the use of a general library. 4. A high-school diploma.

	DISADVANTAGES	
DISADVANTAGES	<ol style="list-style-type: none"> 1. Expense. <ol style="list-style-type: none"> a. One must pay a tuition fee. b. One must pay for books and other equipment. 2. Lack of broad education. One spends most of one's time in direct preparation for one's work and thus misses much general education. 	<ol style="list-style-type: none"> 1. A longer course. 2. More general than occupational training. Some — but few — public schools do not offer good trade or commercial training.

Correspondence and evening schools. In correspondence and evening schools there is a good opportunity for people who have been obliged to cut their education short before beginning their work. It is of course best to go to a full-time school as long as you can, but for almost every occupation that we study, you will find that there is somewhere an evening school where a person can prepare for something beyond his present position. This is especially true in the larger cities. A correspondence course may be taken, no matter where one lives, but it takes will power to stick to it and do the work alone. Many people, however, have secured the equivalent of a college education in this way. Not only may one prepare for an occupation in these courses, but also if one has been obliged to neglect general education in his hurry to get into work, one may thus make up for it. It is to evening schools and correspondence courses that people already earning their living usually turn when they feel the need of more education.

Schools beyond high school. Many high-school students plan after their graduation to go to college, and therefore choose a college preparatory course in preference to a general course or a specialized commercial or trade course in high school. Now, just what is meant by a college, and why do we say that business colleges are generally misnamed? Why do we say, "That is a college man," "This woman has had a college education"? We usually mean that such a person has been graduated from a school which he cannot enter without a diploma from a senior high school and which requires four years of study after high school. At the end of this course, he is given a bachelor's degree and is known as a college graduate. Thirty years ago it was the exceptional person who went through college, and the authorities tried to persuade young people to attend. Today almost all colleges have more students than they can well handle, and they are planning ways to make it harder

to enter. Should you go to college? Do you need it for your occupation?

Many kinds of colleges. The college used to be the school for general education where a student learned the things that seemed to prepare him to take his place among the more intelligent people. It was a general training

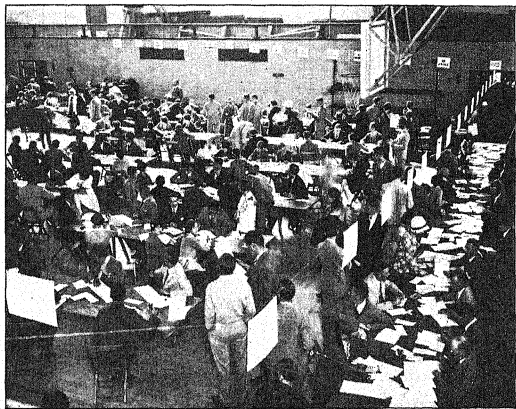


Photo by John D. Jones. Courtesy of Northwestern University

For many kinds of work, you will need college preparation. These young people are filling out the necessary blanks for college entrance. They are matriculating in a large university.

that made one better able to lead in many a field. It helped to develop a finer class of men and women. That kind of college is still in existence and is called the college of liberal arts. But there are many other kinds: special colleges to train for special occupations. Some of these are for dentists, some for doctors, for ministers, for engineers, for teachers, for journalists, for lawyers, and for business men. Some of

these may be entered from high school ; others require one, two, or three years of general college training.

Universities. In this country we usually mean by a university an institution that is made up of a number of colleges. Besides these, there is often a graduate school. In the latter young men and women study for one year or for two, three, or even four years after their graduation from college and receive advanced degrees. Much of this advanced study is meant for those who intend to enter the professions.

QUESTIONS AND EXERCISES

1. Make a table of two columns. The first, label *Unit of School*, the second, label *Position*. In the first column list the units, as grade school, junior high school, senior high school, junior college, senior college, professional school, graduate work. In the second column after the names of each school write in the names of two or three positions that you think a person might fill if he started to earn his living at this point.

UNIT OF SCHOOL	POSITION
Grade School	
Junior High School	
Senior High School	
Junior College	
Senior College or University . .	
Professional School	
Graduate Work	

2. Consult the advertising columns of a daily newspaper of a big city, or the advertising section of some weekly or

monthly magazine for April, May, or June, of any year. Make a list of at least ten schools that are advertised for training in a particular vocation. Write the name of the school and the name of the vocations considered.

3. Would you prefer to attend a private or a public school? Write a short theme telling why you think one or the other would be better.

4. What kind of person do you think would profit by taking a correspondence course? What kind by attending an evening school?

5. How much and what sort of education do you think would be valuable for a girl who marries when she is twenty-three years of age? Give reasons for your statements.

PLANNING YOUR EDUCATION

Important decisions. In the light of your occupational adventure, it is necessary for you to make some important decisions:

1. Do you hope to enter an occupation that calls for a college training? If so, you must fulfill the college entrance requirements by taking the right number of units and the right combination of studies in high school.

2. Do you prefer office work? You must examine the commercial curriculum of your school.

3. Perhaps you are interested in the possibilities of the home-economics girl. What does your school provide for her?

4. A skilled trade may lure you. In the shop department you can get a good start in training for that.

5. So, also, for banking, railroading, or agriculture you may get a foundation during the next three years.

What your school offers. Make a business of finding what your school has to offer. Your teachers, your adviser, or the vocational counselor will be glad to help you block out

your course of study. You must get something from your education besides mere training for your work. You are to be all-round men and women and intelligent citizens. There are many studies that will make your life richer and broader, and you should not neglect them. There are the sciences: biology, chemistry, physics. Everything will look more interesting to you after you have studied these. Whenever you see a machine do its work, or watch the animals in the park, or even cook your food for dinner, it will mean more to you because of what you learned in science. History, civics, and related subjects will help you to understand what you read in the newspapers and magazines. You will learn to question what you find in print and thus to think for yourself. Mathematics gives the pure joy of conquering, and besides it helps in understanding other studies. Even in high school, you cannot get your physics without it. Music, drawing, and dramatics will not only develop some skill but will also help you to appreciate the most beautiful things that have been done in the world. Finally, nothing is more important than literature. One who appreciates literature understands life, history, and the people around him.

Your plan. By this time you are able to pick out two or three occupations in which you are most interested. You are now to make a special study of the equipment needed for these adventures. An important fact is that you are standing at a fork in the road, one path leading to those occupations requiring college education and the other to those for which a high-school course is sufficient. Make your decision. Start on your preparation. But do not be afraid to change if greater knowledge shows you that you have taken the wrong path.

The following exercises are designed to guide you in finding what training is necessary and to assist you in blocking out the plan for your education.

QUESTIONS AND EXERCISES

1. Choose one or more occupations for which you would like to investigate the preparation. (It is hoped the teacher will see that a large variety of occupations is chosen.)

2. From the material collected for your vocational library, select a catalogue or bulletin of information in order to answer the following questions concerning the training in the occupation you have selected for investigation.

a. What are the name and location of the place of training?

b. For what occupation is the preparation?

c. What are the requirements for admission?

d. What is the length of the course of training?

e. How much would it cost per year?

f. What degrees if any are given at graduation, and what other degrees are possible?

g. Name three studies that are suggested for each year.

h. Is there any kind of practice work in the occupation for students in training?

i. Does the training prepare for any examinations that may be required by the state or city?

j. Find out, if you can, the standing of this school or place of training.

k. What particular advantages are there in choosing this plan of training?

3. From your investigation, you may have discovered that certain colleges require for entrance the passing of the College Entrance Board examination. If the annual publication of this board is in your library, find out the requirements for examination. What expense is there? In what studies are examinations given? List the colleges that require these examinations. Other colleges admit graduates from accredited high schools. If your high school does not qualify you to enter your chosen college, you should write to inquire whether you may enter by passing the College Board examinations.

4. You, with the rest of the class, are now ready to pool the information that you have gained. Someone should draw on the blackboard a diagram like the model given, entitled *Training*.

TRAINING

OCCUPA- TION	SCHOOL AND LOCATION	REQUIRE- MENTS	COURSE	COST	DEGREE	PRACTICE WORK
Teaching	Columbia University New York, New York	High school diploma	Four years	\$ — per year	B.A., M.A. and Ph.D. for addi- tional work	In Lincoln and Horace Mann schools

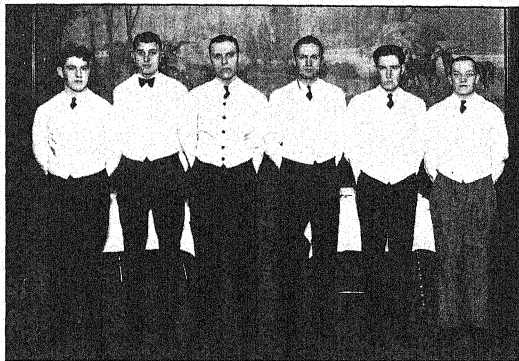
Draw as many horizontal lines as there are members in your class. Label the vertical columns as in the model. One by one the members should go to the board and write in the proper rectangle the name of the occupation for which he has investigated the training. He is to report on his findings from Question 2, and as he does so, is to write in the spaces according to the model. Copy the diagram in your notebook so that you may refer to it when you answer Question 6.

5. Obtain a copy of the Course of Study of your high school. Now make a diagram of two columns extending the long way on a page of your notebook. Label the diagram *A High School Course for —*. (Write here the occupation you are studying.) In the first column make a list of every study that you find that could help a person in this occupation. In the second column, give your reason for thinking it would help.

6. For one occupation map out a definite course of study for a person from the ninth grade to the time he begins his career. You will get most of your information from the results of Exercises 2, 3, 4, and 5. Include subjects that will be valuable for your leisure time and for your adventure as a citizen.

7. If possible, interview someone engaged in the occupation you selected for Question 6, to find out how he was prepared. You might show him the course you have mapped out and ask for suggestions.

8. Let one member of the class inquire at the telephone exchange in your town about an investigation of the American Telephone and Telegraph Company to find out about the advancement of employees who had stood high in school in comparison with those who had not made such good records. Report to the class.



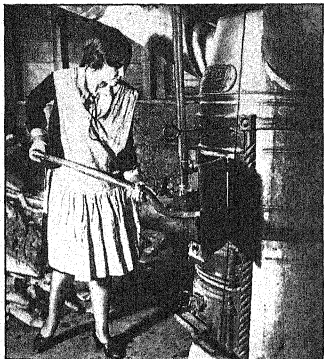
Courtesy of Fenton Kelcey Co., Advertising

These bus boys assist the waitresses by clearing away the used dishes in a restaurant. Meanwhile they are studying to be aviators, and are earning money to pay for their training.

EARNING AN EDUCATION

Since we have talked about free public schools it may seem unnecessary to talk of earning an education. But even though you attend a school where instruction is given without cost, there is still much for which your parents

must pay. For one thing, unless the school is very modern, they will have to pay for your textbooks. Then possibly you live so far from the school that you will require carfare and lunch money. You may need gymnasium and swimming suits; at any rate your ordinary clothes will cost something. Besides, all this time your food and shelter,



P. & A. Photo

This girl was so eager for an education that for a time she earned her way by taking care of a furnace. The work is a little too hard for a girl, but later this one received a scholarship which made her way easier.

your doctor's and dentist's bills, and other incidentals are expenses that your parents must meet. You are most fortunate if they can continue to do all this after you are sixteen years of age. But if they cannot, and you really desire an education, you will be able somehow, sometime, to earn it for yourself.

Ways of earning.

Many a boy has earned his necessities by odd-time jobs before and after

school and on Saturdays. Schools conduct bureaus through which a student may find opportunities for part-time work. In the summer vacations he might earn and lay by some money for the next year. If you plan for a higher education, that is, beyond high school, you will find additional ways of getting help for a college course. In some colleges, the program is especially planned so that students may alternate periods of school training with periods of work in

QUESTIONS AND EXERCISES

1. Mention twenty ways in which a boy might earn money while in school. Would any of these conflict with the child-labor law?
2. Do you think that textbooks should be free in a high school? Why or why not?
3. Give ten ways in which a girl might help to earn her education.
4. Try to estimate how much money your parents have to pay out for you, say, in the ninth grade. Could you earn that much in one summer? Explain how.
5. The average amount of work for a college student is fifteen hours a week. That means three one-hour classes a day for five days and each class represents about two hours of outside work. Your classes might not be so regular. You may have five on Thursday and only one on Monday or any of several arrangements, but with an average of three a day. Make out on a page of your notebook (drawing a rectangle $8'' \times 4''$, like the one below) a time schedule of a week for a college student showing class hours, study and recreation hours, and hours for earning money. Be sure to leave eight hours for sleep.

6 7 8 9 10 11 12 1 2 3 4 5 6 7 8 9 10

[illegible]

CHAPTER XXI

BEGINNING YOUR OCCUPATIONAL ADVENTURE

Success consists in doing common things uncommonly well. —
JOHN D. ROCKEFELLER, JR.

THE CHOICE

A diagram. You are nearing the end of this study. Your notebook should show what you have gathered from time to time of occupational information. One task still remains. In Chapter II you found suggested six principles that might help you in choosing your lifework. You are now to make a chart in order to evaluate ten occupations according to those principles. Make a diagram similar to the one which follows. In the first column write the names of the ten occupations that attract you the most. At the heads of the following columns are words indicating the six principles. Next estimate each occupation by placing in the spaces after it the numbers 1, 2, or 3, according to the order in which you would rank it under each of the six principles. If the occupation ranks very high, give it the value 1, if moderately high, 2, and if low, 3; that is, for each of the six principles, give each occupation the mark 1, 2, or 3. For instance, take the occupation of agriculture or one of its branches. If you have much interest in farming, mark it 1; if your ability is slight, give that 2; if there are only moderate opportunities, mark that 2; if you can go to an agricultural college, put down 1 for that; but if you would very decidedly dislike country life, give the surroundings a mark of 3. (Remember that in connection with this point, you should consider *hours of work*. Many persons

would prefer shorter hours even with unpleasant surroundings but with time for an avocation, to longer hours in pleasanter surroundings.) If the farmer's income seems inadequate, rate that 3. (Consider the income according to whether you can, through the years, earn enough to meet your needs. Do not be influenced by the first year's wages.)

A CHART FOR EVALUATING TEN OCCUPATIONS

OCCUPATION	INTEREST	MY ABILITY	OPPOR- TUNITIES	PREPA- RATION	SUR- ROUND- INGS	INTEREST
Agriculture	1	2	1	3	3	2

Study your diagram carefully and try to decide which occupation has the most favorable estimate. It will not necessarily be the one to which you gave the greatest number of 1's, because perhaps you consider certain of the six principles much more important than others. Perhaps you gave one occupation four or five 1's but rated it under *ability* only 3. It is very doubtful whether even five 1's would outweigh that one 3. So you must study carefully to see to which occupation you have given the most favorable report. You do not need to decide finally upon your work today or tomorrow, but this chart should be a help.

A theme. You should now be ready to write a theme telling what occupation at this time seems the best suited to you for your lifework. Give your reasons for the choice, and prove that each is a valid reason. Tell just how you expect to prepare, where you are likely to begin your work, and what you think will be the outcome. This theme

should contain at least five hundred words. It should be written on pages that will fit into your looseleaf notebook and should be inserted in the proper place near the end. This theme should be written in the first person.

YOUR FIRST JOB

The opening. After you have taken all the time you possibly can for background and preparation for your work, the next thing is to find the place where you are actually to begin. You will probably need to content yourself with a very unimportant place at first, but if you keep your goal in mind, it will help you greatly in attaining the place you want in the end. It is usually hard to find the first place, but a few suggestions may help. *First, make a job of getting your job.* It takes as much work to find a job as to hold one after you get it. *Second, let people know what you are looking for.* Often your friends or their friends will know of openings of which you would never hear if you kept quiet about your plans. *Third, read the advertisements in the newspapers.* You may feel discouraged if you should spend some time following these without results, but many good positions have been found through answering these advertisements. *Fourth, the school or college from which you are graduated will probably have a placement bureau,* whose attendants will let you know of opportunities. In your town or city you will find other agencies that may be able to help. The organizations of which you learned when studying *social service* usually have such agencies, while private companies run many others which will serve you for a small fee and a certain percentage of your beginning salary. Try any or all of these ways to find where the openings are.

The application. You may apply in one of two ways; either by a personal interview, or by a written application.

In the case of the interview remember to make a neat and pleasing appearance. Be frank in what you say. Have the courage to face the employment official, whoever he may be, for you have something to offer which is worth the price which you expect him to pay. You must have something definite to say. In the written application you must also be neat, courageous, and definite. The form of such letters has doubtless been presented in your English classes. Above all do not be discouraged. Never give up your determination to find your place in your occupational adventure.

QUESTIONS AND EXERCISES

1. Write an application for a place in the occupation that you have chosen.

2. Plan a dialogue to be given in front of the class in which you interview someone about your first position. Several of these dialogues might be given, the second person representing the employment manager of a large business, the owner of a small business, a lawyer in whose office you would like to be a clerk, a farmer, or a superintendent of schools.

THE QUESTION OF SUCCESS

What success is. Probably every young person would say that he wants to succeed in his work, but not everyone would have the same definition of success in his mind. A diagram of almost any occupation might be drawn in the form of a pyramid. Does success to you mean reaching the point represented by the top of this figure? We are told that in America everyone has an opportunity to reach this highest point, that all he needs is the ability and the determination. That is, in a sense, true, but shall we say that anyone who has not reached that pinnacle has failed in his lifework? He might not have the special kind of ability that an executive must have. He might have great skill of hand so that while his place was on a different level,

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it would still be as necessary as that of the person on the highest level, and he would still be as successful as the man at the top. Each level has its own grade of work, and each is necessary. If you do not reach your own best level, you will fail of success; if you do, you will be successful, no matter what anyone else does. Even holding the highest position is not necessarily the same as having the highest ability. Executive ability is very necessary and important, but there are many other kinds of ability that the highest executive may well envy. So let your definition of success be this: the development and use of your powers to the highest point of which you are capable.

Suggestions to help in gaining your own best success. Think it over and decide what the goal of success is to mean to you. Aim as high as you think your ability and determination can reach. But even though you decide that the very top is not to be your goal, still you will find it no easy matter to reach the place that according to your ability you should reach. There have been many sad failures of people who have fallen below the goal that their ability shows should be theirs. A few suggestions from those who have seen many people succeed or fail may help you.

Do the common things well. Mr. Rockefeller used the words at the beginning of this chapter when he was speaking to 500 boys working in New York's financial district. Doing the common things, and we might add, doing only a few things, but doing them very well, is one of the first rules for success. Many people wait for an unusual chance to show their ability, and often that chance never comes. Use your brains and always try to do the most skillful work possible.

Use initiative in your work. Many people fail through a lack of initiative, that is, they do not themselves think of work that they ought to do, and of ways to do it. One girl lost her position because she was afraid to take responsi-

bilities that she was not ordered to take. The truth was that she was afraid of intruding, but her attitude gave her employer the opinion that she was not interested in her work. Along with this advice, however, there is a little warning to be given.

An eager desire to advance often means competition with someone else. If one is not careful, this brings out



Courtesy of United Air Lines

If you would advance in work, there is no end to study. This worker had to learn the technique of testing propeller hubs before he could be entrusted with this responsibility.

traits of character that no one really admires. It causes jealousy and leads one to the use of little tricks in order to get ahead. If you descend to such things, you will develop an ugly character and thus lose the best that life has for you. In the busy occupational world that you are to enter, it will often happen that another person will get the credit for some work that you do. You must hold up your head and not allow such things to make you bitter. In the long run, the person who does sincere, skillful work

is more than likely to reach the best place that he is capable of filling.

Advance by means of study. Never stop preparing in some way or other to do your work better. You may be content with routine work that you can learn to do almost perfectly with very little preparation, but even then you must look out for new ways of doing it more quickly and more accurately. The more skill and the more judgment your work takes, the more you will need to study and read and practice in your leisure hours.

Be alert, and work constantly. Form the habit of getting at your work promptly, and of keeping at it during the working hours in spite of difficulties. This is really a combination of two traits of character that are called decision and perseverance. One can see the possession or the lack of these traits in individuals in almost any class that is about to write a test or some exercise in class. Some have paper and pencils ready, start to work the minute the bell rings, and keep their minds on what they are doing until the work is complete. Others sharpen pencils, borrow paper from their neighbors, and fidget around in their seats until they have wasted five or ten minutes of the time. Even then the least thing distracts their attention from their work. Decision and perseverance are matters of habit, and you will be wise if you train yourself to them while in school. One good way is to say to yourself, "This day counts." A sixth-grade teacher once wrote the following in a pupil's autograph album :

One of the illusions is that the present hour is not the critical decisive hour. Write it on your heart that every day is the best day in the year.

The quotation is from Emerson, and the girl, who is now a woman, says that she often read it wondering what it all meant. Somehow, however, the words sank into her

mind, and as she grew older, they often came to her and helped her to do her work, and to feel how important every day really was.

Form the habit of saving. You will find also that you can do much better work, if while you are young you form the habit of thrift. This habit will result in your having some money laid aside for emergencies and for the future, so that you can keep your mind on your work without worrying about financial troubles. It will be hard to form this habit unless you begin with the very first money that you earn. A little laid aside on every pay day, and a resolution never to touch that little or its interest unless absolutely necessary, will keep you from worry when you grow older and will help you to do better work.

Choose your friends carefully. Another very important thing for a young person is to choose the right friends. Some people are too timid to choose their friends. As in the case of work, they have no initiative, but wait for others to come to them. You have the right to choose the people with whom you are to spend your leisure hours. Young people who are eager to work out the best that is in them are the better for being with one another. Besides, other people, among them your employer, are likely to judge you by your taste in friends.

Finally these six things: developing skill and using initiative, continually and always preparing, doing your work promptly and keeping at it in spite of difficulties, being careful about your money and choosing the right friends—all of these you may this moment begin cultivating. Junior high school, senior high school, and the first working years are the most important time in fixing these habits.

Conclusion. Your procedure is: first, to choose your occupation; second, to get all the preparation possible; and third, to use your greatest initiative and ability to get

a start in your work. Then determine to mount to your own best level. It takes character to succeed in this sense. There are, however, those who lack some of the finest traits of character and still forge ahead of others. One might reach the highest point on the pyramid, but lose the finest thing in life. In the next chapter we shall discuss some of these finest things.

QUESTIONS AND EXERCISES

1. Write your own definition of success. Do not be afraid to differ from what has been said in this chapter. You will succeed if you gain the thing that you want most. Think it over carefully and then write down your definition.

2. Having given your definition of success, write another theme telling just how you plan to attain it.

PLAYETTE

Y. W. C. A. PLACEMENT BUREAU

(MRS. PLACE *and her secretary are seated at desks.*)

SECRETARY (*at telephone*): Mrs. Place can see you for a few minutes if you can come up at once. She has an engagement to speak at a luncheon. (*Hangs up receiver, and says disgustedly.*) I suppose that Mary Blue has lost her job again.

MRS. PLACE: Oh! I hardly think so. Please get her card for me.

SECRETARY (*looking at the card*): Why, Mary Blue has had four jobs in six months. She ought to give up trying to do office work.

MRS. PLACE: I can't understand it. But we'll see what her trouble is this time.

(MARY BLUE *enters.*)

MARY (*crying*): Oh! Mrs. Place, I am so ashamed to come to you again. I have lost my job and I don't know where to turn.

MRS. PLACE (*kindly*): I'm sorry, Mary. This does look serious. Let's see if we can find out where the trouble is. What cause was given this time?

MARY (*showing slip*): The same as before — *inaccuracy*. But they added *carelessness* this time. And that's not fair. (*sobbing*) I've tried as hard as I could and I'm not careless.

MRS. PLACE: Let us look at this from another angle. Are you well?

MARY (*surprised*): Why, I'm not sick. Of course, I don't have as much pep as I would like to have. But I have never gone to a doctor.

MRS. PLACE: You never have to miss work?

MARY: No, but I do have awful headaches sometimes.

MRS. PLACE: People don't have headaches without cause. You say you have never been to a doctor?

MARY: No, I didn't think it was necessary, and I couldn't afford it.

MRS. PLACE: Let's go down and arrange for a physical examination. (*Prepares to leave.*)

MARY: Oh! Mrs. Place, I have only enough money saved up for two weeks' room and board. I don't see how I can afford to do that.

MRS. PLACE: We'll attend to that later. You've had good training, you are neat, and you have a pleasant personality. You should succeed. It is possible that your health might be interfering.

(*They go out.*)

SECRETARY (*to herself as she gets her coat to leave*): If you ask me, I think that girl should go back to the country where she came from. She can't hold a job in the city.

A SATURDAY SIX MONTHS LATER

(*Same office.*)

MRS. PLACE (*at telephone*): Yes, Mary, I was just getting ready to leave the office. Come right up.

MARY: Oh! Mrs. Place, I had to come to tell you my good news. Beginning next week, I am to have charge of our office with a raise in salary.

MRS. PLACE: How splendid! I knew you could succeed. Mary, you are a very different looking girl from the dejected one who came in — let's see — six months ago, wasn't it?

MARY: Yes. How can I ever thank you enough, Mrs. Place, for insisting on that physical examination! When I think of those blind spells I used to have in the office, I don't wonder that I used to make mistakes. The girls say I am going "nuts" on the subject. Every time one of them gets discouraged I want her to have a physical examination.

MRS. PLACE (*laughing*): Unfortunately, Mary, we can't lay all the failures to health. I wish we could.

MARY: No, but you can't imagine how different the world looks to me now that I have these glasses and am feeling better.

MRS. PLACE: You certainly look better. Your new coat is very pretty.

MARY: Can't you come to have lunch with me to celebrate my good fortune?

MRS. PLACE: Thank you. I should like to.

(They go out together.)

CHAPTER XXII

STANDARDS

He who does wrong does wrong against himself. He who acts unjustly acts unjustly to himself, because he makes himself bad. —
MARCUS AURELIUS

Work. As you progress in your adventure of living you will realize more and more that labor of some kind is not only necessary for most people in order that they may earn a living, but also it is essential for everyone in order that he may maintain his place as a worthy member of a society in which labor is the law of life. Children and young people must labor to equip themselves to fulfill their duties in later life, and mature men and women must labor with hand or brain to make each his own contribution to the welfare of the community of which he is a part. The man or woman who does not appreciate the dignity of labor does not know human life at its best. He is not a member of society but a parasite living upon society.

Ideals. There is therefore no question but that you must do your share of the world's work. But, besides choosing a vocation for yourself, you must settle another important question. You must determine by what standards you are going to live. What is your chief motive in your work? What goal will you strive to reach? By what ideal will you measure the results of your efforts? What aim is to govern your life? You have chosen a vocation; you must now choose an ideal.

An example. To make this point clear, we may think of a loyal high-school boy on a football team. His voca-

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tion, for the time, is that of playing football; his aim is that the team shall win the championship. He will work hard, will sacrifice pleasures, comforts, and even his own glory in a game in his effort to help put his team nearer that goal. He is not playing to make money, not merely to gain strength or to have fun, or to gain a reputation for himself alone. If he were working for any one of these things, his attitude toward the game would be different. He might not be willing to give up other pleasures in order to keep himself fit for athletics, and often he would try to make a brilliant play rather than to pass on that opportunity to someone who he knew could win more for the team. He is striving for the success of his team; that to him is most worth while, and he measures his work by the degree to which it has helped toward that end.

QUESTIONS AND EXERCISES

1. On a page of your notebook, make an oblong of two vertical columns. Label one of them *Motives* or *What a person might want most*. Label the other *Occupation that might satisfy this desire*. Now draw lines dividing the vertical columns into ten equal horizontal divisions. Fill in the first column with names of desires or motives. Fill in the second according to the label.
2. Think of five characters in the latest books of fiction that you have read. Were their motives and desires high or low?
3. Can a person always get what he wants most of all? What do you think the following people desired most: Julius Caesar, Abraham Lincoln, Benedict Arnold, Richard I of England, Theodore Roosevelt, Thomas A. Edison? What of the men who have made their living by robbing others, or the men who have preferred to suffer hunger and want rather than to steal?

SOME QUALITIES IN A CODE OF HIGH STANDARDS

Self-respect. Self-respect and self-confidence are very closely related, but the true self-respect is very different from conceit. There are too many people in the world with fine character and high ability for anyone to feel that he is above the rest. But why should you respect yourself? First, you have a certain amount of ability. Everyone has. Your ability may be small; it may be large; but whatever it is, you can cultivate it and increase it. Psychologists tell us that scarcely anyone has cultivated his natural ability as much as it is possible to cultivate it. So if you keep trying, you will develop a power that will naturally give you self-confidence and self-respect. Second, you belong to a country in which there is no recognized aristocracy, but in which everyone may respect himself for what he has accomplished regardless of the position into which he was born. It makes no difference what anyone else may think; you know yourself and for what you stand. Be willing to *be yourself*, to cultivate whatever gifts nature has given you, and then to hold up your head no matter whom you may meet. Real self-respect should keep a person well-balanced; for on the one hand he will consider himself above all cowardly, mean, and little things; on the other, he will not be conceited, for he cannot help respecting the gifts and achievements of others.

Buoyancy. Have you seen buoys floating on the lakes or on the ocean, put there to point out to seamen where the shoals or rocks or other danger points are situated? In its original meaning, a buoy is a sign or a signal. But these signals must be made so that whatever happens, they will rise to the top of the water. From this quality of buoys we have come to use the word for anything that similarly lifts. If you feel blue or discouraged, a game in the open may act as a buoy to your spirits. If you yourself have the

quality of coming to the top no matter what happens, we say that you have *buoyancy*. If you have this quality, you will not only come to the top yourself, but, like the life buoy, you will also bring others up with you. The next time you have to stay home and work when your friends are going to a game, or you have a bad cold and cannot attend the best party of the season, try cultivating a little buoyancy ; imagine yourself on top of these disappointments just as the buoy is on top of the waves. This will help to buoy up the people around you, and incidentally will make others glad to have you around. Robert Louis Stevenson once said, "A happy man or woman is a better thing to find than a five-pound note."

Example. It was found that a sixteen-year-old boy had tuberculosis. He was sent to a sanatorium two thousand miles from home, and naturally at first he was somewhat blue. His father wrote him, "We all have our troubles of one sort or another." Then he told his son of a young woman who had an incurable disease. Many would have given up entirely. She gathered all her courage, trained herself for study and work, and because she had a talent for writing began to write a novel. She carried the work through to the end, and the boy's father said that she seemed to those who met her as happy as anyone else. This kind of buoyancy that, in spite of everything that can happen, makes one find his work in the world and do it happily, is one of the hardest traits of character to cultivate, and one of the most valuable.

Determination. Determination, if developed to a proper degree, is a quality greatly to be desired. If carried too far, however, it becomes pure obstinacy, which is a sign of stupidity. To refuse to listen to advice because you have made up your mind to do a certain thing, to be determined to do the thing you wish to do, no matter what the reasons may be to do otherwise, this is obstinacy and does not stand

well according to the standards of fine traits. Indeed, it takes great strength of character to face the fact that your first decision was wrong, and to be willing to change.

The right kind of determination will overcome every obstacle that may lie in the path leading to the highest development. It is not a determination to get ahead of others, but to beat your own record. Try it in your school work, in your athletics, and in your debates. You will be surprised to find how much you can do that had seemed impossible, and every time you have overcome an obstacle, you will have added a little to your strength for the next battle. This same determination will make you more self-reliant, that is, determined to solve your own problems. Perhaps you have a hard problem in mathematics. You rush to your father or older brother and say, "You must help me in this!" You have not the determination to say, "I will solve this myself." Every time you succeed in solving a problem by yourself, you are helping to form a habit that will stay with you through life.

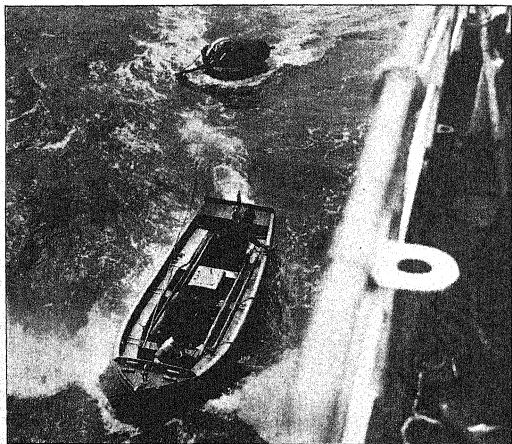
Example. One man of real ability could never hold a position because he was afraid to decide things for himself. He was made superintendent in the construction of a building. Every time that something important had to be decided, perhaps more brick or lumber to be bought, he was helpless, and telephoned by long-distance to the contractors for whom he worked. This was expensive in time and money to his employers, and they soon put another man in his place.

Courage. Of all human traits, the quality of courage is probably the most generally admired and at the same time the most misunderstood. It takes a wise person to know whether a certain action is courageous or simply reckless and foolish. The word *courage* comes from the Latin word *cor*, which means "heart." The dictionary tells us that courage is "that quality of mind which enables one to encounter danger and difficulties with firmness, or without

fear, or fainting of heart." Notice that there is nothing said about rushing into danger needlessly. Shakespeare says,

"That wrens make prey where eagles dare not perch,"
and Pope says a little more plainly,

"For fools rush in where angels fear to tread."



P. & A. Photo

These men are engaged in a thrilling adventure to help in the business of communication. Just now they are hauling back the buoys that marked the course of the cables. This work requires courage.

When a motorist tries to cross a railroad track before a fast train reaches the crossing, he is showing not courage but carelessness. A boy who aims his gun playfully at himself, or even cleans his gun without being absolutely certain that it is unloaded, is not courageous but worse

than foolish. Much that we call courage comes from ignorance or the foolish recklessness of one who does not take time to think. Again, if a girl, bragging that she is "not afraid of the 'flu,'" hugs and kisses her sister who is ill with the disease, that act is not one of courage but of ignorance. She has never looked at germs through the microscope, and has no idea of the information that scientists possess about them. In all these cases, the false courage is useless.

On the other hand, people who are always afraid are not courageous. This machine age in which we live surrounds us with dangers. As one physician is fond of saying, "We cannot shut ourselves up in a capsule." We must face danger if we do any work in the world or get any joy out of living. We are losing the whole adventure if we are always afraid. A father was trying to cure his daughter of fear while riding in their automobile. "But," she said, "lots of accidents *do* happen." "Yes," answered the father, "but there is something in the way you meet dangers when they come." If you are really courageous, you will not go recklessly and ignorantly into dangers that might better be avoided, neither will you let your mind dwell constantly on what might happen. You will, on the other hand, go ahead enjoying your work, your avocation, and your friends, determined to meet with firmness anything that in your adventure of living comes in your way.

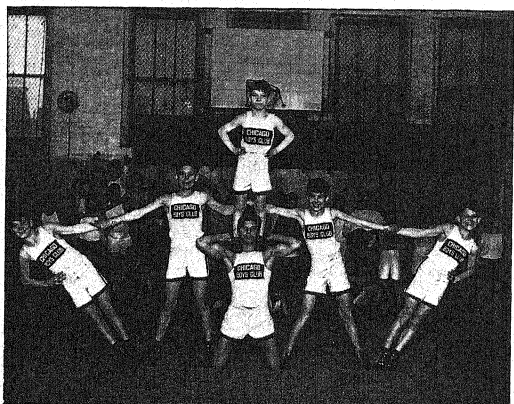
You might develop courage to a high degree, and yet use it in the wrong way. We cannot deny that it takes courage to do many things that are wrong. Some people appear good only because they are too cowardly to be bad. So a group of unruly boys can often persuade such a "good" boy to join with them in wrongdoing, simply by bolstering up his courage and by making fun of his cowardice. He may thus develop a little courage but may use it in the wrong direction. A rightly courageous boy would say, as Macbeth

did when he was called a coward for hesitating to commit a crime,

“I dare do all that may become a man.

Who dares do more is none.”

Many leaders have been courageous enough to start and carry out terrible wars, but the suffering and death thus brought



Courtesy of Chicago Boys' Club

Sportsmanship is developed in these boys by work in the gymnasium.

to thousands of people makes their courage anything but right.

Sportsmanship. We hear much about being “a good sport.” According to the dictionary, a sportsman is one “who in sports is fair and generous ; one who has recourse to nothing illegitimate ; a good loser and a graceful winner.” Modern slang calls such a person “a good sport” ; and he may be called this even though he takes no part nor interest

in games. In a class or club, a good sport is fair enough to let others show what they can do; he is generous enough to bring something interesting to the group even though he gets no credit for it. He does nothing illegitimate, that is, he does not cheat, but is willing to stand or fall on what he himself has learned. He is a good loser. If others get higher marks or higher honors, he takes pleasure in their success and does not allow himself to be envious. He recognizes that others may have better minds and may have worked harder than he has, and he does not lay their success to an unjust judge or to fate. Finally, he is a graceful winner. Because he realizes that the losers may be as capable as he, may have worked as hard, and may defeat him the next time, he does not allow himself to gloat over them. Even though he knows that he is the better man, he sees the fine qualities of those over whom he has won, and besides, he sees the possibilities that he himself has not nearly reached. And so he does not strut or feel superior, although he is happy that he has accomplished something. However often a "good sport" fails, he does it with good spirits; however often he succeeds, he is not conceited.

Energy. Since boys and girls are usually full of energy, the important question is, "How are you using your energy?" Many young people think that they are too tired to do their school work, but as soon as someone suggests a game or a party, their tiredness seems to leave them. It takes will power to force yourself to use a good share of your energy for the things that you know you ought to do. You will probably say, "If I were interested, I should do it." All through life there will be things that you ought to do, and other things that you feel much more like doing. It would be a fine plan to begin now to practice giving the duties at least as much energy as the pleasures. You would be a weak person indeed if you used all your power in having a good time. And if you put energy into the things that you

know you ought to do, you will soon find that you get pleasure in so doing.

Self-control. You can use your energy in developing *self-control*. Sara Crewe, in Mrs. Burnett's story, has a very hard struggle with her hot and quick temper. At one time she says, "There's nothing so strong as temper, except the thing that holds it back. That's stronger." Some



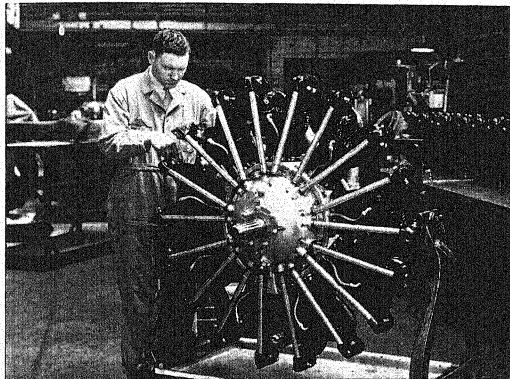
Courtesy of International Harvester Company

Cutting and loading these logs requires energy.

people think that energy shows itself only in being busy. But energy is needed to control oneself just as much as to make oneself work. On the other hand, control of oneself sometimes means making oneself work just as much as it means keeping oneself quiet. If you have ever done any horseback riding, you know what it means to control a horse. A complete master of his horse can make him work hard when that is his will, and he can keep him from being skittish and excited when that is necessary. Can you see

now the meaning of the saying, "He that ruleth his own spirit is greater than he that taketh a city"?

Courtesy. "It is too bad to leave the beauty out of life," said a boy in a high-school class. He belonged to a school where so many young people were being trained to be machinists, aviators, printers, and typists, that the students sometimes did forget that there was such a thing as beauty in



Courtesy of United Air Lines

At this test stand such accessories as starters, engine-driven dynamometers, generators, and other engine equipment are tested. To detect flaws this man must be on the alert.

the world. In your study about the fine arts, you have also thought about the people whose lifework it is to bring more beauty into the world, or to point out the beauty that is already here. One may have self-respect, buoyancy, and determination; he may be courageous, sportsmanlike, and energetic, and still may lack a certain quiet beauty of character. Courtesy, for instance, may not be necessary in

order to make a living, but it is a very beautiful thing. One of the best ways to be sure of being courteous is to develop consideration for other people; for their ideas, their happiness, and their comfort. Stevenson says that we must make ourselves good and other people happy. One thing that makes us enjoy reading the stories of the knights of the Middle Ages is their ideal of helping the weak and of being always courteous. Many ugly things happened in those ages, but the stories of kindness and courtesy add a beauty to the picture that is likely to make us forget the other side. Remember this, then: kindness and courtesy may not be necessary, but they are beautiful. Would you not rather have beauty than ugliness?

Fairness. Have you ever heard children younger than yourselves say, "That's no fair!"? Everyone, young and old, objects to unfairness or injustice. If your playmates are not fair in their games, if an umpire, your teachers, or even your parents do not seem fair in their judgments of your work, your play, or your behavior, you are always hurt and perhaps very angry. There is nothing that upsets most people more than to feel that they are treated unjustly.

Are you willing to be fair and just, no matter how hard it is for you? Do you ever stop to think whether you are fair to other people, and even to yourself? There are people who do not work hard to earn their living simply because they know that they can always call upon some relative or friend to help them out when they get into trouble. If we have the necessities and comforts of life, someone has worked for them. Is it fair to let someone else bear these burdens when we are well and strong enough to bear them ourselves? Is it fair to expect our friends to stand by us if we do not stand by our friends, even when it is hard to do so? Have you known people to take credit and praise for accomplishing things when someone else really did the work? For instance, a committee of four students has charge of a school party.

Three members of this committee do all of the hard work: they plan for the music and the games, they order the ice cream and cake, they see that the hall is decorated and that there are plenty of dishes and chairs. While they are doing all of this, the fourth member is resting or playing with other friends. At the party hour this fourth member is in good spirits and smiles when he is told what a good piece of work he has done. Is this fair?

Honesty. Any decent person would agree that the right kind of man must be honest. But people have different ideas of what honesty really is. You will say immediately that an honest person neither steals nor lies; and yet a person may be dishonest and still neither steal nor lie. We are to consider honesty in two other ways.

Sincerity. First, if a person tries to gain anything on false pretenses, he is not sincere. For example, many schoolboys are eager to win honors in athletics. A boy who wants to get and keep a place on a school team must, according to the rules, make a certain grade in his studies. Now it is not easy to make oneself both a good athlete and a good student. To become either takes effort and time. Since a boy has more fun playing baseball than studying his lessons, a weak boy sometimes plans to get credit for class work on "false pretenses." When he is required to hand in certain papers, he copies what some more studious boy has written. He thus gets credit for one day's work, but this does not help him when the examination comes. At that time, then, he uses one of the well-known tricks of cheating for making his teachers believe that he has done certain work which he was too lazy or too busy with his athletics to do himself. On these "false pretenses" he may make the required grade in his studies, and thus be allowed to play on the school team until the end of the term.

The consequences. But he has done a dishonest thing, and will surely reap what he has sown. He has sown hard

work in athletics, but laziness and cheating in his studies; he has reaped success in athletics and credit for his studies, but no real gain from them. If he goes to college — and these athletes usually want to go — he will soon find that he cannot do the work required of him there. He has sown false pretenses and cheating instead of hard work; he will reap a high-school diploma — perhaps — but also the inability to do college work.

This boy has reaped something worse than that. He has been doing what Dean Briggs of Harvard calls, "fooling with his standards of truth." One cannot fool with standards without lowering them. Since a lowered standard is sure to be discovered by other people, the result is that one's stock in a reputation for honesty goes down. When he was sowing he did not realize just what the harvest would be.

Paying the price. There is another kind of honesty which many people never think of. An honest person will want to pay a price for every good thing that he has. It is a dangerous thing to want to get something for nothing. It is dangerous, because every time you try you will be tempted to try again, and in the end, as sure as fate, your character will break down. There is a cost in getting something for nothing.

Two boys came home from an excursion with their railroad tickets still in their pockets. "See, Dad," they cried, "we can go again. The conductor didn't notice us."

"Let me see the tickets," said their father. "You had the ride?"

"Yes, sir."

"Then you have had what you paid for." And he tore the tickets into bits. Such training has made of these boys men whom all can trust.

Many of us want things for which we are not willing to pay. We think that we want an education, but we are not willing to pay the price of hard work. We want friends,

but are not willing to pay the price of loyalty when the friends are not present. We want a good position in our occupation, but are not willing to pay the price of using our minds and strength to attain it. We think that we can advance by "having a drag with our employer," or by using trickery to get ahead of someone else. If we succeed in this way, we have done it dishonestly ; we have gained something for nothing when we should have paid the price. But there is a cost for such gains. Since we have not laid the foundation of really learning the business, the lack of ability will sooner or later show in our work.

Every code of living should contain a very high standard of honesty. Some try to reach this standard because they know that sooner or later they will be punished in some way for dishonesty. But some have such a high standard of honesty that even though they had no fear of punishment of any kind, still they would not allow themselves to play with the idea of dishonesty even for a moment. They believe in honesty for its own sake. They admire and trust honest people ; they want to be honest themselves. They want to be men and women of high character. Therefore they not only do not lie or steal ; they do not try to gain anything on false pretenses, nor to get something for nothing.

QUESTIONS AND EXERCISES

1. Look up the exact meaning and derivation of the word *aristocracy*. Name as many kinds as you can. To which would you rather belong ?

2. List ten things that you are able to enjoy as much or almost as much as if you owned them.

3. What is the value in our money of a five-pound note ? What did Stevenson mean by the words quoted on page 360 ? Do you agree with him ? Why, or why not ?

4. Tell the story of a disappointment experienced by someone whom you know.

5. Stevenson also said: "Our business in this world is not to succeed, but to continue to fail in good spirits." What did he mean by this? Do you agree? Why, or why not?

6. A week from today, be ready to report on some hard task that you determined to conquer. How did you make yourself do it?

7. Explain the quotations used in this chapter on pages 364 and 366.

8. A seventeen-year-old boy was behind the scenes in a theater when a fire broke out. He stepped before the curtain and calmly told the people to leave the building quietly, and they would be safe. With the help of others, he prevented a stampede. When he thought all were safe, he heard cries from the women's rest room, found that the stairs leading there had already burned, so with two others climbed on a near-by roof over to the window of the room, and saved the girls. See if you can imagine how this young boy happened to have so much courage.

9. Will a courageous person always be willing to fight? Imagine a pacifist who is willing to go to the front to care for the wounded. Has he courage? In the library, find out about Mahatma Gandhi in India. What are his ideas about fighting? Is he courageous or cowardly?

10. Compare the courage of Lindbergh with that of gang leaders in a big city.

11. Tell the story of some courteous act of one of King Arthur's knights.

12. Oliver Wendell Holmes once said, "The more closely people are associated, the more necessary do tact and courtesy become." Can you explain what he meant, and do you think it is true? Think of a family whose members are always courteous to one another. Do you know any people who think that home is the place to be slack and forget about tact and courtesy? What is the difference in the atmosphere of the two homes?

13. Stage in the class a sort of equity court. Elect a judge, and have one member bring a charge of unfairness against another. Either one or both of these may impersonate someone outside the class if they prefer. Each should plead his own case, and tell his side of the story. The judge should weigh both sides and try to come to a fair solution of the case. The class should vote on the fairness of the judge's decision.

14. Explain in your own words the quotation from Shakespeare:

To thine own self be true,
And it must follow, as the night the day,
Thou canst not then be false to any man.

15. Analyze the persons suggested in the following statements:

a. A young man declares that he considers it one's duty to cheat the railroad companies.

b. A girl remarked: "I had to have a theme that day, so I borrowed my sister's of two years ago. I got by with it."

c. A sales manager: "Talk up when selling. Talk down when buying."

d. A man who runs a bookstore says that he does not believe in public libraries.

e. A company which manufactures explosives is against the pacifists.

f. The office worker who fools and gossips when the boss is out, but knows how to look busy when he returns.

g. The employee who pretends to be ill and accepts money for work he has not performed on a day when he is having fun.

h. The man who makes a business of buying property for taxes and selling it back at a big price.

i. The man who, when he receives a bill for money which he owes, says, "Well, I am safe. They can't sue me for this."

j. The boy who, even though he knows that he will never

be found out, walks into the principal's office and says that it is he who broke the window.

k. The boy who, because he believes that smoking cigarettes undermines the health of anyone under twenty-one years of age, refuses to smoke. His friends call him silly and weak.

l. The girl whose mother cannot afford to buy her a new winter coat, but who does not allow herself to be ashamed of the shabby one she must wear.

m. The boy who thinks that he can explain why some in his class received higher marks than he did. There are several reasons, but it is never that anyone really deserved it.

n. The girl who does good work in her studies, plays basketball, helps in the school parties, and does her share at home.

o. The musician who practices and works to improve his playing every day and thinks more of that than of an increase in income.

SOME SUGGESTIONS FOR REACHING HIGH STANDARDS

We tend to become like those whom we admire. The heading of this paragraph gives you one secret for cultivating the traits of character that you would like to have as your own. You have probably read Hawthorne's story of *The Great Stone Face*, in which Ernest not only grew to have the character of his hero but even to look like him. A story is told of a simple Canadian woman who was born on the day on which Queen Victoria was born. Her family and friends jokingly called her "the Queen's twin." Because of this fact, she read and learned all that she could of the Queen, and came to admire her. Then almost unconsciously she developed queenly traits. She walked like a queen, she would not stoop to little things that she imagined were beneath the dignity of a queen. Thus, admiring her heroine and thinking about her high standards had a great influence on the character of the Canadian woman. Be sure that you

admire really admirable people, and then think about their high standards as much as possible.

We must work to form good habits. Thinking about your ideal makes a difference, but mere thinking is not enough. You must try to form habits that will help you to develop self-respect, courage, buoyancy, and honesty. We are told that forming a habit is like winding a ball of string. Every turn of the hand makes the ball bigger and firmer; but once drop it and you lose more than you have gained in many turns. Suppose you are trying to gain self-control; every time that you hold your temper back, every time that you force yourself to make a courteous reply when you do not feel like it, you are that much stronger; but every time you give way to your feelings when you know you ought not to, you have dropped the ball of string and it will take much longer to get back to the point you had reached.

Work itself develops character. If you try, you may cultivate the virtue of industry, and if you are industrious, you are pretty sure to cultivate other virtues. The writer, Charles Kingsley, says, "Being forced to work, and forced to do your best, will breed in you temperance and self-control, diligence and strength of will, cheerfulness and content, and a hundred virtues which the idle will never know."

The fine arts help. One of the ways of getting the foundations of a good character is to learn to understand what the greatest minds in the world have accomplished. The great writers, composers, and artists have been able to see real standards better than the rest of us. If you learn to appreciate masterpieces in art and the best literature and music, you will be living in a world where your very thoughts and feelings will help you to high ideals.

Religion is the greatest character builder. Your parents have doubtless taught you their religion. Whatever it is, it stands for the finest traits of character, such as industry, honesty, kindliness, and courage. Be faithful to your reli-

gion, for you will find it to be the best way to gain strength to reach high ideals in your adventure.

Conclusion. A high standard of morals is absolutely necessary for everyone who would gain the respect of others and live a satisfactory life. Each person should have a standard, even though he may change some points in it as he learns more about life. Merely adopting a standard will not make you the right type of man or woman. In your adventure you must each day practice training yourself, and you must not be discouraged if it takes you a lifetime to succeed.

QUESTIONS AND EXERCISES

1. Many fine qualities have been left out of this discussion. Try to add five more.

2. Have you ever tried to develop the best that is in you? What has helped you the most?

3. What traits of character does this prayer of Stevenson's suggest?

Give us courage and gaiety and the quiet mind. . . . The day returns and brings us the petty round of irritating duties. Help us to play the man, help us to perform them with laughter and kind faces, let cheerfulness abound with industry.

4. A great teacher once said, "Character is in action." What do you think he meant?

5. Plan a "Playette" and write the speeches of three boys — John Doe, who has driven his father's car to the playing field, and two other boys from the group. The legal age for driving is fifteen. The boys are all under fifteen. John Doe feels that it is not dishonest to lie about his age when driving the car. One boy agrees with him, the other disagrees. Bring out the different standards of the boys.

LEADS FOR SOURCE MATERIAL

- National Child Labor Committee, 419 Fourth Ave., New York, N. Y.
The president of any labor union in your town for apprentice requirements and union regulations.
- California Fruit Growers Exchange, Los Angeles, California. *Sunkist Bulletins*.
- University of Alabama, Tuscaloosa, Ala. University of California, Berkeley, California. Northwestern University, Evanston, Illinois. For courses in college of commerce.
- American Institute of Banking, 22 East 40th Street, New York, N. Y.
- State Director of Vocational Training — Your state capitol. For opportunities for education.
- American Vocational Association, in care of the National Broadcasting Company. "Talks" — at three cents a copy.
- Story of Evaporated Milk Association, 231 South LaSalle Street, Chicago, Illinois.
- Zion Lace Industries, Marshall Field and Company, Chicago, Illinois. *The Romance of Lace*.
- Bear Brand Hosiery Company, Chicago, Illinois. *The Making of World Famous Hosiery*.
- H. J. Heinz Company, Pittsburgh, Pennsylvania. *Story of the "57."*
- Carnegie Foundation for the Advancement of Teaching, 522 Fifth Avenue, New York City, New York. Report on the standing of dental schools.
- Columbia University, New York City, New York. School of Dental and Oral Surgery.
- General Motors Research Division, Detroit, Michigan. Pamphlet: *Research — An Eye to the Future*.
- Catholic University of America, Washington, D. C. For architecture.
- University of the State of New York, Albany, New York. *Handbook for Optometry*.
- University of Wisconsin, Madison, Wisconsin. Courses in chemistry.
- Iowa State College of Agriculture and Mechanic Arts, Ames, Iowa. Courses for the veterinary surgeon.
- University of Arkansas, Fayetteville, Arkansas. Lewis Institute, Chicago, Illinois. Simmons College, Boston, Massachusetts. For home economics.
- Purdue University, Lafayette, Indiana. Traffic School. For training traffic officers.
- Andrew T. Frain, 1836 W. Madison, Chicago, Illinois. For training ushers.
- Tennessee Valley Authority, Temporary Building F, Washington, D. C.
- The United States Treasury Department, Washington, D. C. Pamphlet #12 (1935), "Helping the Farmer Pay His Debts."
- Cornell University, Ithaca, New York. Courses for hotel managers.
- Lane Technical High School, Chicago, Illinois. Courses in air-conditioning and servicing.
- School of Speech, Northwestern University, Evanston, Illinois. For radio announcers.
- Western Reserve University, Cleveland, Ohio. For social service.
- Hemphill School of Diesel Engineering, Chicago, Illinois.
- School of Fine Arts, University of Nebraska, Lincoln, Nebraska.

The National Municipal League, 309 East 34th Street, New York City.
 Reprints of radio series, "You and Your Government."
 The American Medical Association, 535 N. Dearborn St., Chicago, Illinois.
 Material in regard to the profession of medicine.

The foregoing are merely suggestive. The list of schools may be extended by consulting McCracken's *Educational Directory*. Teachers and pupils can probably suggest other material.

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